Environment Canada Environnement Canada

CONSERVATION AND PROTECTION

ENVIRONMENT CANADA

RESULTS MODEL / OPERATIONAL PLANNING FRAMEWORK

PROJECT REPORT

JUNE 1988

Canada

91-02065/

MANAGEMENT BOARD DECISION DOCUMENT

JUNE 30, 1988

C&P RESULTS MODEL PROJECT

The attached report outlines the nev C&P Results Model and the proposed Operational Planning Framework that is based on that model. Specific recommendations are provided in the areas of (1) communicating the model; (2) the program planning cycle; (3) Program Activity Structure revisions; (4) results measurement; and (5) implementation. The major recommendations and the Management Board decisions on these recommendations are outlined below:

Recommendations	Proposed Rationale	Management Board Decision
1. Use professional expertise to create a package to communicate the nev C&P model to C&P staff and to outside agencies.	- will help build a corporate C&P culture. - will provide C&P management with a tool for explaining our programs to others. - professional communicator is justified by the major effort that has been expended to date.	Accepted. Accountable Manager will be P. Serafini (Communications). Delivery date will be October 1988. Regional input to communications package will be obtained.
2. Use the nev results model to streamline all phases of the program planning cycle (Strategic planning, LTOP, work planning).	- Model provides a vision of C&P; the program planning process enunciates hov that vision will be delivered.	Accepted. Accountable Manager will be J-C. Dumesnil (MI&AB). Implementation will be staggered over one full planning cycle.

Recommendations	Proposed Rationale	Management Board Decision
3. Revise the C&P Program Activity Structure, using the Environmental Improvements in the model as the basis for the development of program objectives.	- the existing C&P program structure is not unified and is only ad hoc in any event. - since the model represents a broad consensus of the C&P mission, it is the logical basis for a new program structure. - Managers and staff alike are anticipating this step as tangible evidence that the model will actually be implemented.	Accepted on the understanding that the revised PAS can be amended at a later date to reflect practical experience. Accountable manager is J-C. Dumesnil. The revised Program Activity Structure is to be in place by September, 1988.
4. Prepare an Action Plan on Results Measurement, based on the idea that implementation of that Plan will occur over a 1-2 year period.	- because we will have to report regularly to central agencies, we whould take the time to develop good measures of performance, and put in place an appropriate system to measure and report on them.	Accepted, but with special emphasis in the Action Plan on aggregate measures of program effectiveness. The Action Plan will be developed by the Results Modelling/OPF Working Group under the direction of the Steering Committee. Delivery date will be August 1988.
5. Disband both the Steering Committee and the Working Group (after completion of Item 4 above).	- C&P Results Model/OPF Project will be completed.	Accepted. Steering Committee and Working Group to be disbanded after completion of Item 4 in August, 1988.

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I INTRODUCTION

In November 1987, the Assistant Deputy Minister, Conservation and Protection (C&P) initiated the development of a result definition model for C&P. As a graphic presentation of an organization's mission, client needs, and expected results, a results model was desired for several reasons. First, the fall 1987 C&P National Management Conference had recognized that a results model would be a useful tool for enhancing C&P communications, both internally and externally. Second, opportunities to use the results model to improve the C&P program planning and review process were also evident. In particular, the present DOE Operational Planning Framework (OPF) is generally viewed to be an inadequate basis for national program planning and reporting. The C&P portion of the existing DOE OPF provides only an interim structure, dating from the 1986 consolidation of the Environmental Conservation and Environmental Protection Services into Conservation and Protection. The new C&P results model was seen as an opportunity to integrate the planning structures of the various component organizations, while at the same time responding to Treasury Board's emerging requirement for a results - oriented OPF as part of its new Increased Ministerial Authority and Accountability (IMAA) exercise.

This report describes both the C&P National Results Model and the new OPF structure for C&P that has been derived from that model. Recommendations are provided for the further implementation of a "results definition" philosophy within C&P, with specific reference to the potential application of the model in the areas of communications, program definition and planning, and results measurement.

It is important to recognize at the outset that the National Results Model presented in this report is the culmination of an extensive consultative process with C&P managers and staff at all levels and in all regions of Canada. Without the full and ongoing commitment of these contributors, no common vision of C&P would have emerged.

A key element of the process was a Steering Committee of Senior C&P managers. This group was accountable for developing the model and the new OPF, and it provided a critical link with C&P Management Board (including the ADM). The Steering Committee had both HQ and regional representation as well as representatives from both line and staff management. Reporting to the Steering Committee was a Working Group, which

also included representation from all regions and all headquarters directorates. The day-to-day model-building and conceptualization work occurred within this Committee.

At the outset, several model-building sessions were organized by the Working Group. This was followed by a series of one-day workshops with middle and senior managers in all regions and all HQ directorates. Significant improvements were made to the model during these workshops. The consensual National Results Model was eventually presented to, and approved by, the full C&P Management Board in March 1988.

FIGURE 1 RESULTS MODELS - DEFINITIONS AND STRUCTURE

MISSION	(Broad statement of scope and authority of the organization.)
NEEDS	(Statements of public expectations. These are stakeholder conditions which must be satisfied if the organization is to be successful.)
EFFECTS	(Statements which describe the benefits that will accrue from program activities. Effects must contribute to a specific public need.)
ACTIVITIES	(Statements which describe what the organization is doing to achieve its intended results.)

II CONCEPTUAL BASIS OF C&P RESULTS MODEL

FIGURE 2 CONCEPTUAL MODEL OF ENVIRONMENT CANADA

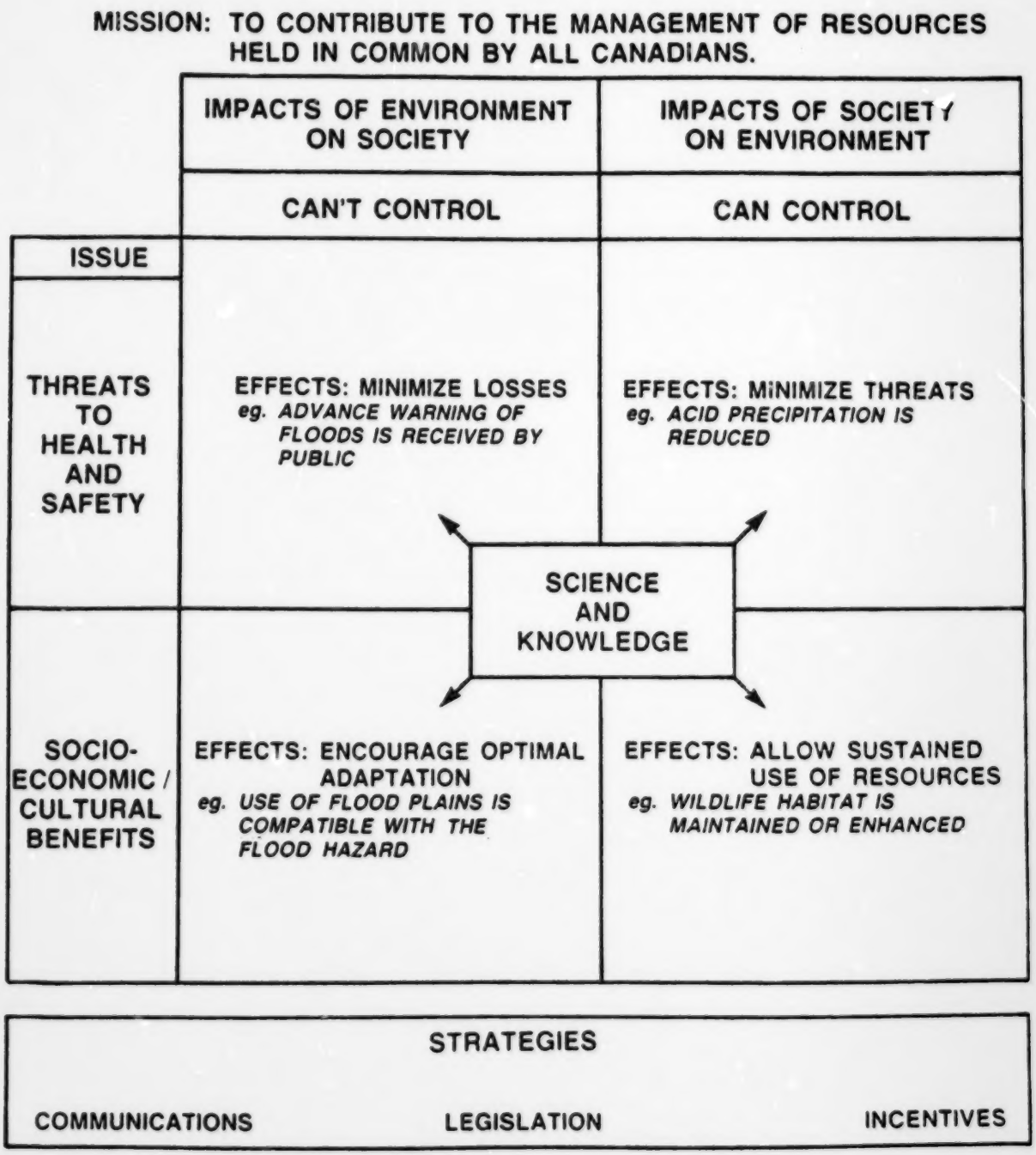
MISSION: TO CONTRIBUTE TO THE MANAGEMENT OF RESOURCES HELD IN COMMON BY ALL CANADIANS.
IMPACTS OF ENVIRONMENT ON SOCIETY
IMPACTS OF SOCIETY ON ENVIRONMENT
CAN'T CONTROL
CAN CONTROL
ISSUE
THREATS TO HEALTH AND SAFETY
EFFECTS: MINIMIZE LOSSES
eg. ADVANCE WARNING OF FLOODS IS RECEIVED BY PUBLIC
EFFECTS: MINIMIZE THREATS
eg. ACID PRECIPITATION IS REDUCED
SCIENCE AND KNOWLEDGE
SOCIO-ECONOMIC / CULTURAL BENEFITS
EFFECTS: ENCOURAGE OPTIMAL ADAPTATION
eg. USE OF FLOOD PLAINS IS COMPATIBLE WITH THE FLOOD HAZARD
EFFECTS: ALLOW SUSTAINED USE OF RESOURCES
eg. WILDLIFE HABITAT IS MAINTAINED OR ENHANCED
STRATEGIES
COMMUNICATIONS
LEGISLATION
INCENTIVES

FIGURE 2 CONCEPTUAL MODEL OF ENVIRONMENT CANADA

This conceptual model of Environment Canada was developed by the Corporate Planning Group in the early 1980s. The Mission Statement reveals that DOE has some (but not exclusive) responsibility for the management of resources held in common by all Canadians. This mission is approached through two major "streams" of effects. The first of these streams relates to reducing the impact of the environment on society. This stream deals largely with human adaptation to natural processes, most of which cannot be controlled. The second stream relates to reducing the impact of society on the environment. This stream addresses human processes, most of which can be controlled.

Cutting across each of these streams are two types of issues. Some issues directly threaten health and/or safety, and therefore require immediate attention. Other issues are less urgent, but can be much more intractable because they affect the long term sustainability of our environmental resources.

The critical role of DOE's science and knowledge is highlighted by their placement at the very centre of this model. And finally, the model illustrates that Environment Canada employs three basic strategies in achieving its objectives (communications, legislation, and incentives).

FIGURE 3 RELATIONSHIP BETWEEN DOE AND C&P RESULTS MODELS

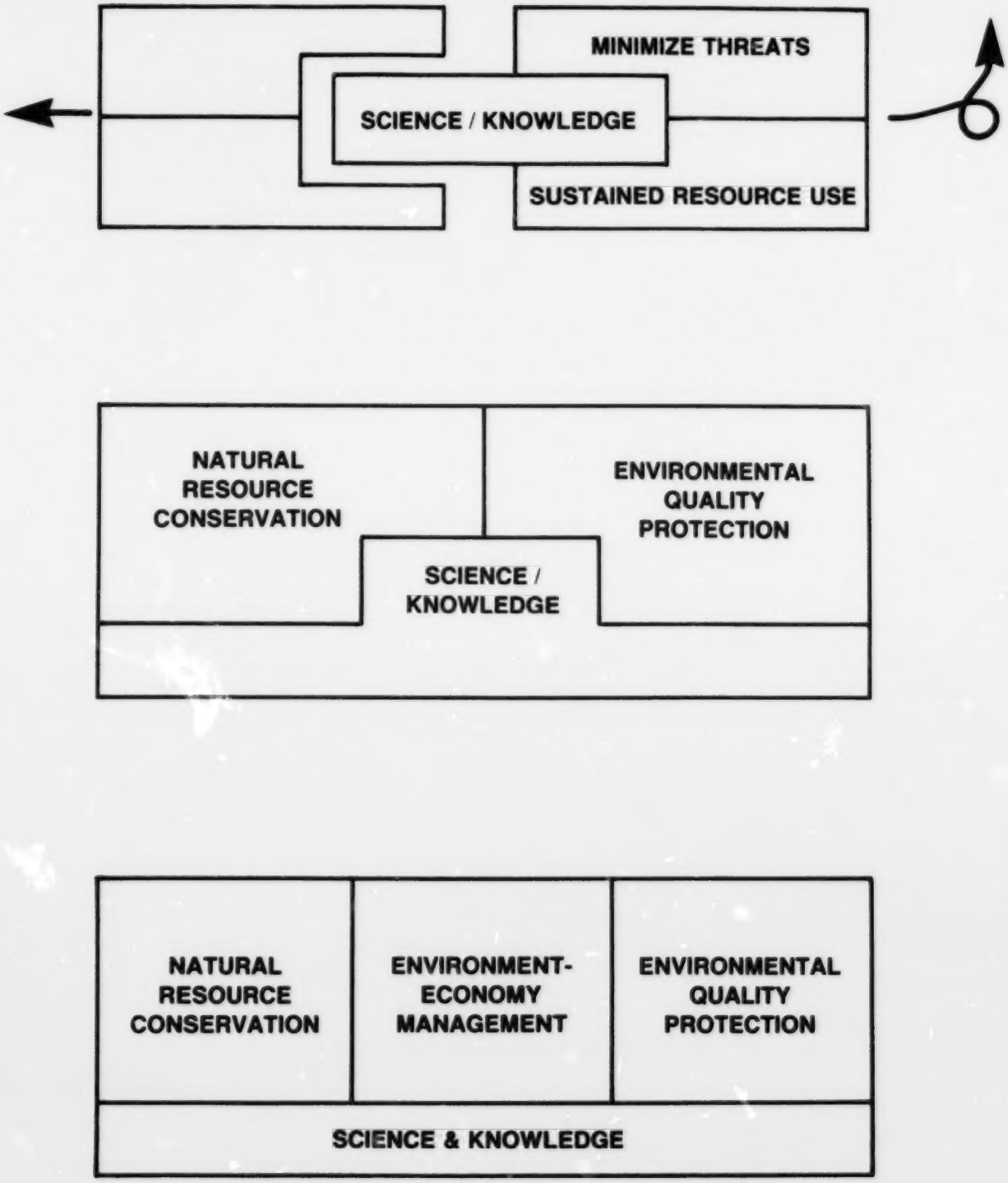

FIGURE 3 RELATIONSHIP BETWEEN DOE AND C&P RESULTS MODELS

Threats to public health and a desire to forge a workable partnership between environmental and economic objectives are the two largest environmental concerns of Canadians, as demonstrated by the fall 1987 Environmental Monitor opinion poll. Not explicitly stated in that poll, but underlying everything that Environment Canada does, is a third objective - to pass along a healthy environment to future generations (ie. stewardship of our environmental heritage). These three public needs form the underpinnings of the C&P Model. "Natural Resource Conservation" is a response to the heritage/stewardship need; "Environment - Economy Management" responds to the public desire for compatibility between the environment and the economy; and "Environmental Quality Protection" addresses the health issue.

The DOE Model provides the conceptual basis for the Conservation and Protection Model. C&P's activities can be attributed almost exclusively to the right hand side of the DOE Model ("Minimize Threats; Sustained Resource Use") and to the center ("Science and Knowledge"). More specifically, C&P's wildlife and water conservation work -summarized here as "National Resource Conservation" - links directly to the "Sustained Resource Use" quadrant of the DOE Model. The "Minimize Threats" quadrant of the DOE Model translates into "Environmental Quality Protection", referring largely to C&P's pollution prevention and control activities. As mentioned above, a new concept introduced in the C&P Results Model, which is not stated explicitly in the DOE Model, relates to "Environment-Economy Management".

The "Science and Knowledge" component of the DOE Model is maintained at the base of the C&P Results Model, again emphasizing the important role played by C&P's science, research and data activities in supporting the delivery of all of the organization's programs.

FIGURE 4 C&P RESULTS MODEL: MISSION AND NEEDS

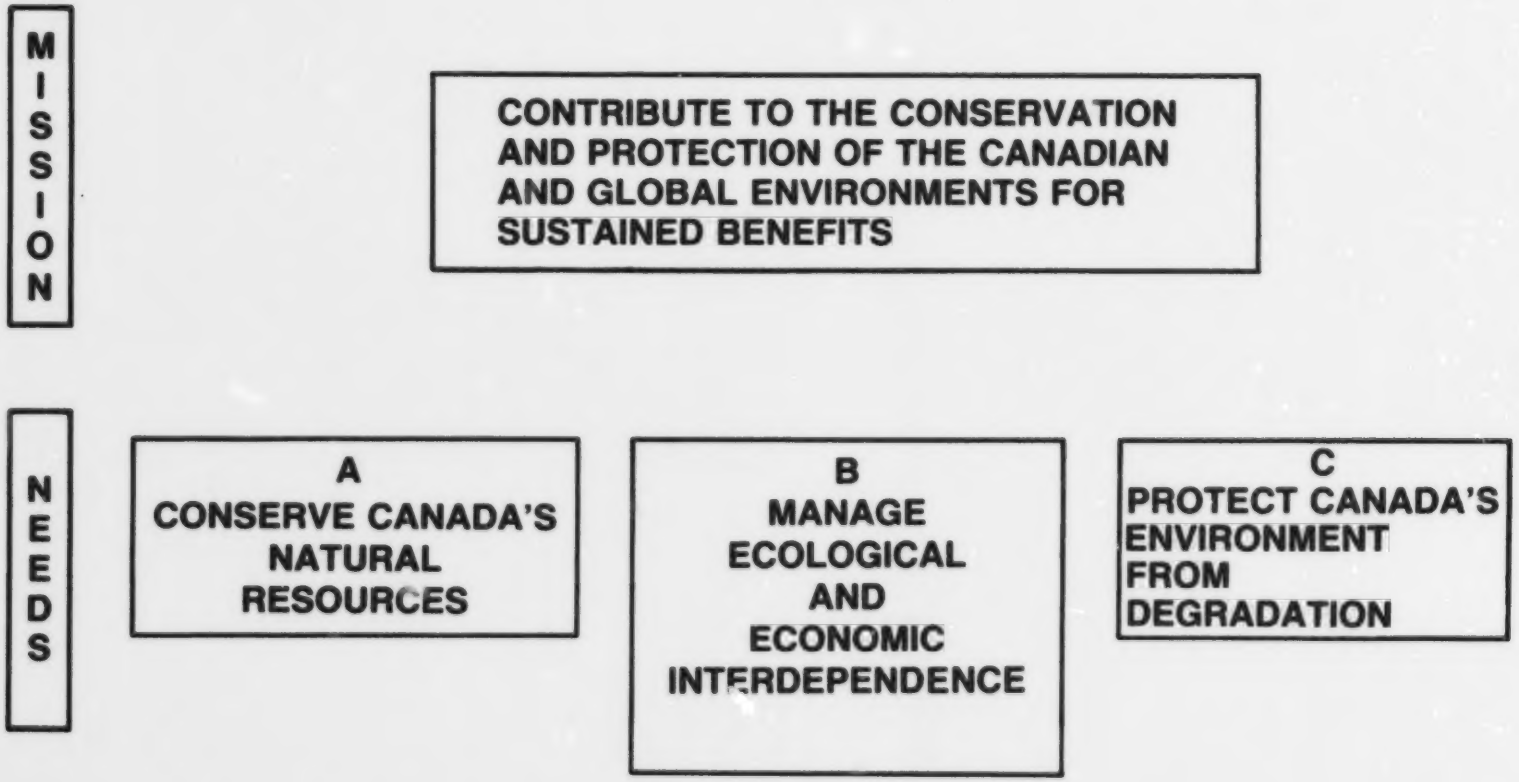

FIGURE 4 C&P RESULTS MODEL: MISSION AND NEEDS

The mission statement defines the general purpose and orientation of C&P. While this statement asserts that C&P has some responsibility for the whole environment, the words "contribute to" signify that C&P shares this responsibility with many others (eg. other levels of government, industry, environmental non-governmental organizatons, and individuals). Indeed, C&P must take on several roles in working towards its mission, ranging from direct action to encouraging others to do their part.

In addition to defining C&P's mandate to "conserve and protect" the Canadian environment, the mission statement also recognizes C&P's responsibility to the "global environment". The reference to "sustained benefits" commits C&P to the sustainable development theme of the World Commission on Environment and Development. This theme emphasizes that environmental resources need to be conserved and their life support systems protected from human activities, in order to meet the needs of present, as well as future, generations.

The three Needs statements (A, B and C) under the Mission follow directly from Figure 3. It is important to recognize that these reflect public needs (not bureaucratic needs). That is, they define the public's expectations of C&P.

Because the public has specific expectations of C&P it is logical for C&P to define its results in terms of these expectations. The remaining figures describe each of these expectations (and the C&P response to those expectations) in more detail.

FIGURE 5 C&P RESULTS MODEL: NEED A

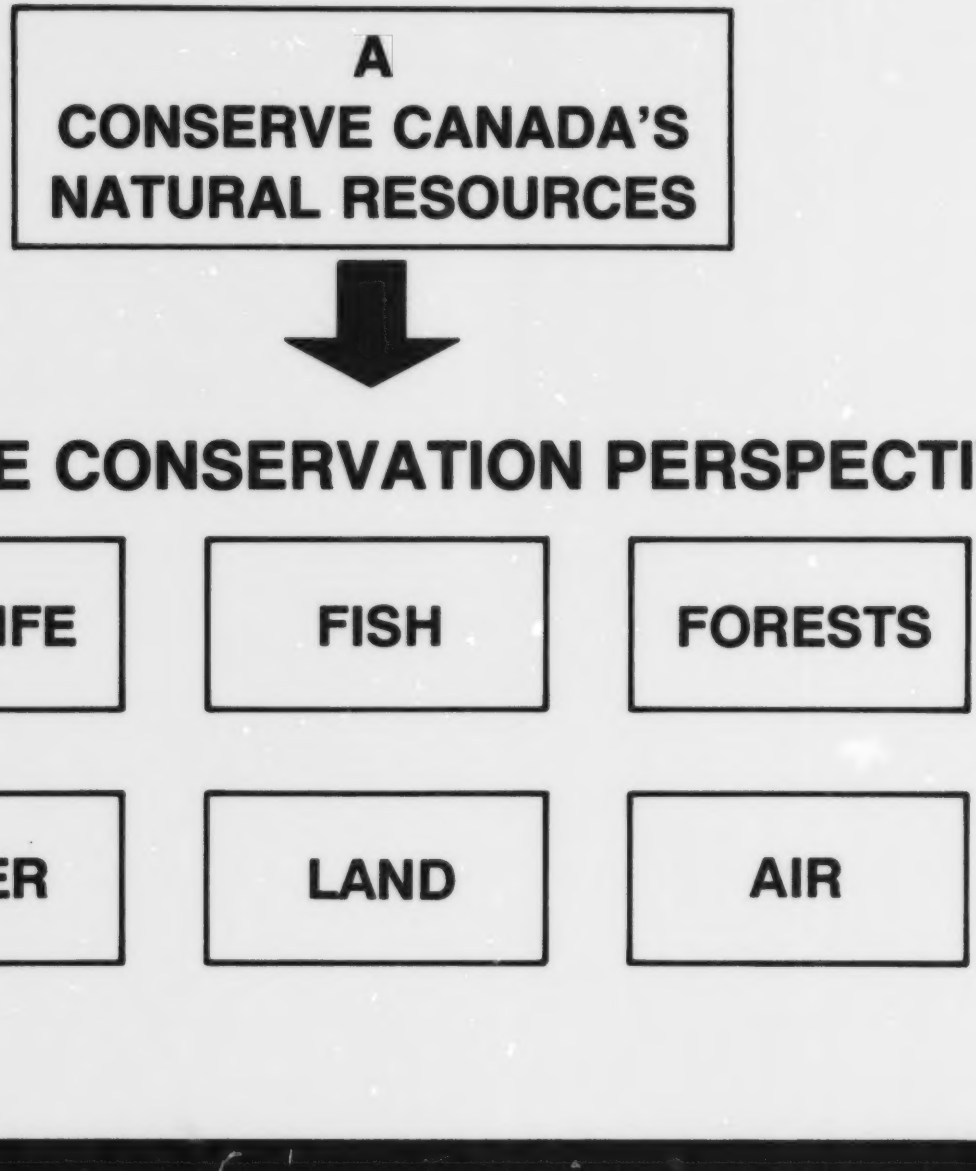

FIGURE 5 C&P RESULTS MODEL: NEED A

Conceptually, the "Resource Conservation" Perspective encompasses all natural resources. This recognizes that C&P (and DOE) has a responsibility for monitoring the state of all environmental resources, and for trying to ensure that those agencies with a specific mandate to manage specific environmental resources do so in a responsible fashion.

In addition to this general stewardship role, C&P has itself been mandated to serve as a key manager in two resource sectors - wildlife and water. Legislation such as the Canada Wildlife Act, the Canada Water Act and the Boundary Waters Treaty Act provide this mandate.

FIGURE 6 C&P RESULTS MODEL: NEED B

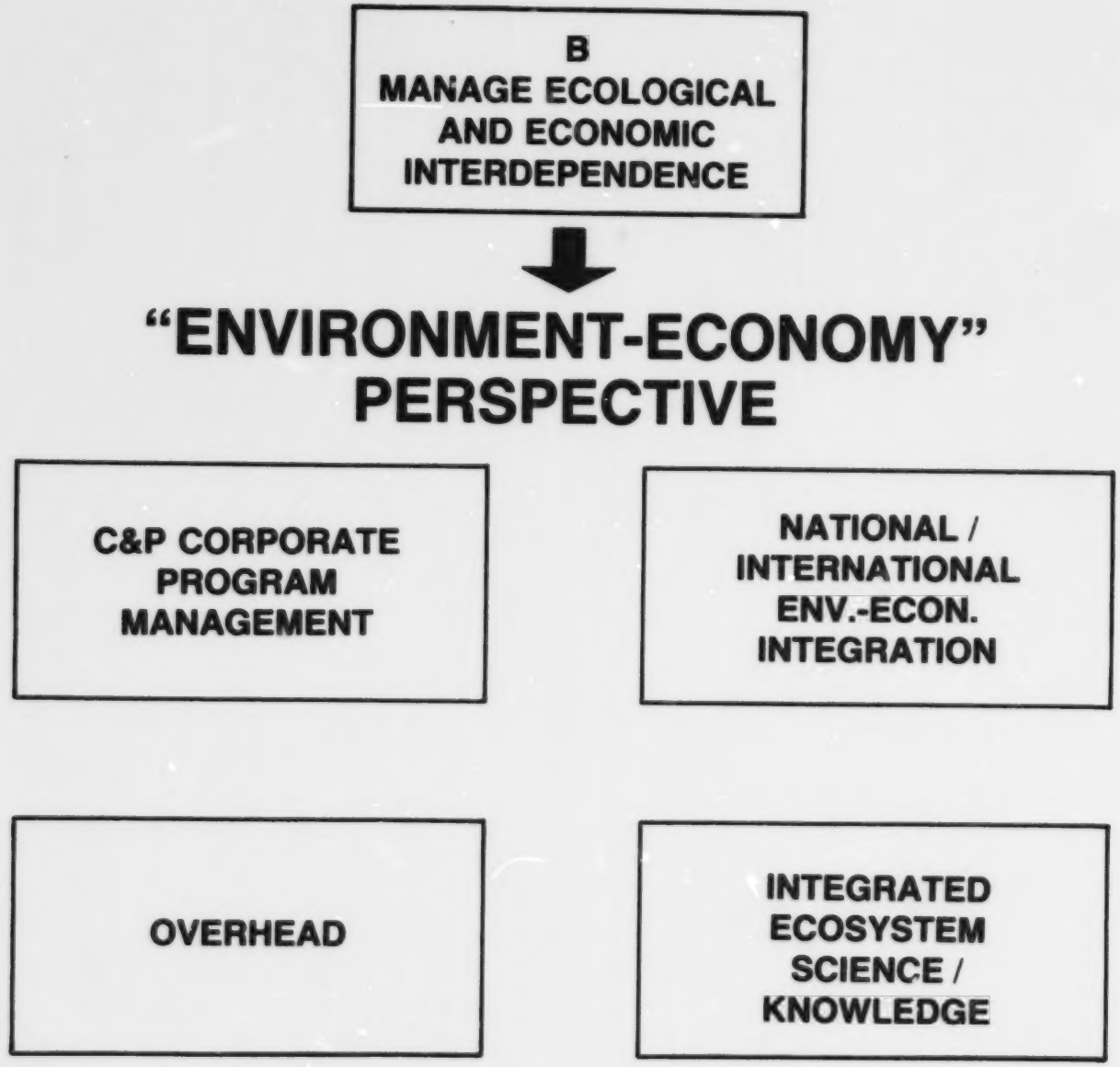

FIGURE 6 C&P RESULTS MODEL: NEED B

Need B emphasizes C&P's commitment to the objective of sustainable development. This commitment can be seen at several institutional levels. In this model, two broad institutional levels have been differentiated. The first is **internal** (within C&P itself). Here, the environment - economy partnership is enhanced by developing and delivering effective/efficient C&P national programs. Smooth - functioning corporate management, finance administration, and personnel services are necessary for achieving these objectives. The second institutional level differentiated by the model is **external** (outside of C&P). What C&P is attempting to accomplish here is to cause environmental interests and economic interests: 1) to interact with each other; and 2) to reconcile their differences. C&P is active in pursuing these goals at the federal department; federal-provincial; and international levels.

Of particular importance in reconciling the environment with the economy is the requirement for solid information on which to base decisions. For this reason, special emphasis is placed by C&P on integrating ecosystem science/knowledge so that it can be more easily applied to complex environmental/economic issues. State of the environment reporting is one example of the type of knowledge which C&P uses to influence others to develop the economy in an environmentally sustainable manner.

FIGURE 7 C&P RESULTS MODEL: NEED C

FIGURE 7 C&P RESULTS MODEL: NEED C

Need C refers to the public expectation that all sectors of the environment will be protected from degradation due to human activities, thereby ensuring the sustained health and productivity of that environment. The statement "Protect Canada's Environment from Degradation" encompasses three basic concepts. First, there is the need to **prevent** new economic initiatives from unduly harming the environment. Second, there is the need to **control** pollution levels from existing economic activities. (Emissions, effluents, and chemical products, such as toxics, are particularly important in this context). And third, there is the need to **clean up** serious environmental problems in order to minimize the environmental health hazard that they represent. Legislation such as the (proposed) Canadian Environmental Protection Act and the Fisheries Act provide C&P with a mandate in each of these areas.

FIGURE 8 CONSERVATION AND PROTECTION: KEY EFFECTS

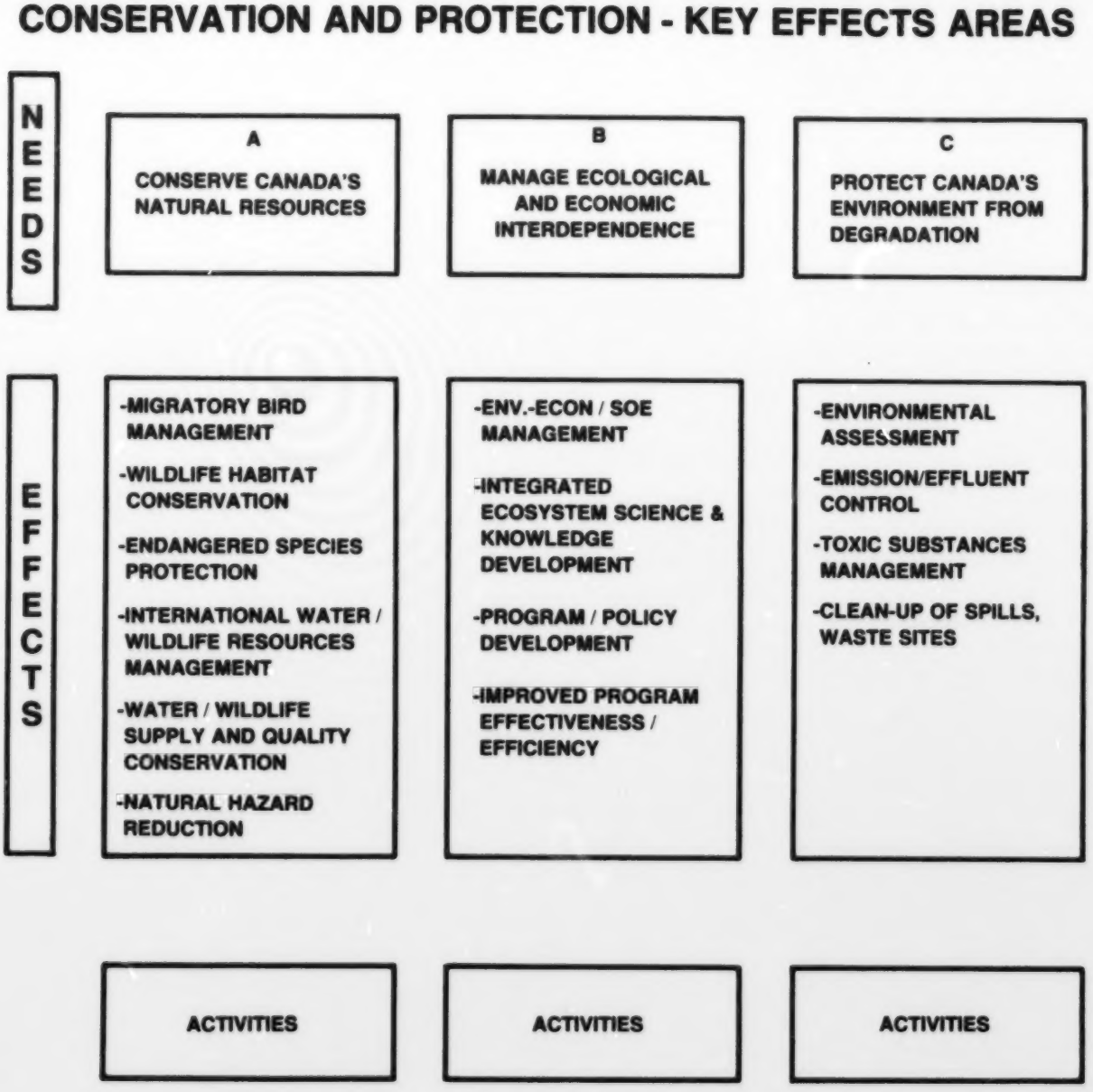

FIGURE 8 CONSERVATION AND PROTECTION: KEY EFFECTS OR RESULTS

The Model defines a series of Results Statements under each Need. Each of these statements articulate the various results that C&P intends to achieve en route to meeting that Need. The entire spectrum of C&P objectives is represented at this level in the model. Program activities support each of the defined results, but they are not the same thing. A fundamental premise of this model is that activities are not ends in themselves. They are important only to the extent that they support desirable results. In order to emphasize the importance of results, no attempt has been made in the C&P Model to specify program activities, except in generic terms.

FIGURE 9 ENVIRONMENTAL IMPROVEMENTS

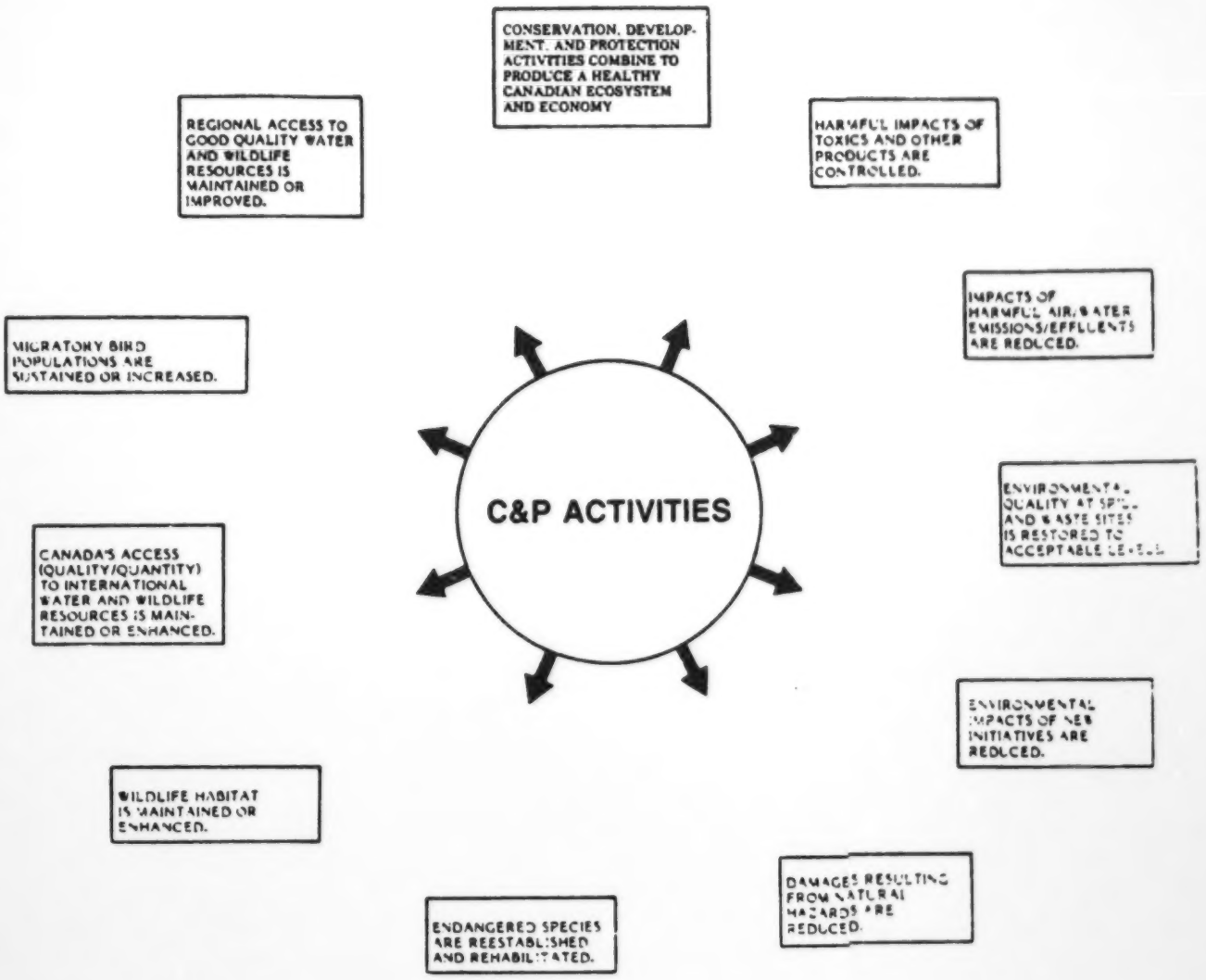
CONSERVATION, DEVELOPMENT, AND PROTECTION ACTIVITIES COMBINE TO PRODUCE A HEALTHY CANADIAN ECOSYSTEM AND ECONOMY
REGIONAL ACCESS TO GOOD QUALITY WATER AND WILDLIFE RESOURCES IS MAINTAINED OR IMPROVED.
HARMFUL IMPACTS OF TOXICS AND OTHER PRODUCTS ARE CONTROLLED.
IMPACTS OF HARMFUL AIR/WATER EMISSIONS/EFFLUENTS ARE REDUCED.
MIGRATORY BIRD POPULATIONS ARE SUSTAINED OR INCREASED.
C&P ACTIVITIES
ENVIRONMENTAL QUALITY AT SPILL AND WASTE SITES IS RESTORED TO ACCEPTABLE LEVELS.
CANADA'S ACCESS (QUALITY/QUANTITY) TO INTERNATIONAL WATER AND WILDLIFE RESOURCES IS MAINTAINED OR ENHANCED.
ENVIRONMENTAL IMPACTS OF NEW INITIATIVES ARE REDUCED.
WILDLIFE HABITAT IS MAINTAINED OR ENHANCED.
DAMAGES RESULTING FROM NATURAL HAZARDS ARE REDUCED.
ENDANGERED SPECIES ARE REESTABLISHED AND REHABILITATED.

FIGURE 9 ENVIRONMENTAL IMPROVEMENTS

Each "stream" of results in the Model is headed by a "key" result. These are specific results that C&P is working towards in a given program area. Note that it is possible to link each of these statements "upstream" in the model to a public expectation/need. However, it should not be interpreted that all of the key results that relate to a public need will be sufficient by themselves, to fulfill that need. The results statements merely reflect how C&P has opted to use its mandate to partially address that public need.

Once again, it should be noted that all of the key results represent some type of environmental improvement. To repeat a point that was made earlier, unless C&P activities support an environmental improvement, there is no justifiable basis for those activities. For that reason, an activity cannot constitute a key result in this Model.

FIGURE 10 RELATIONSHIP BETWEEN EFFECTS AND NEEDS

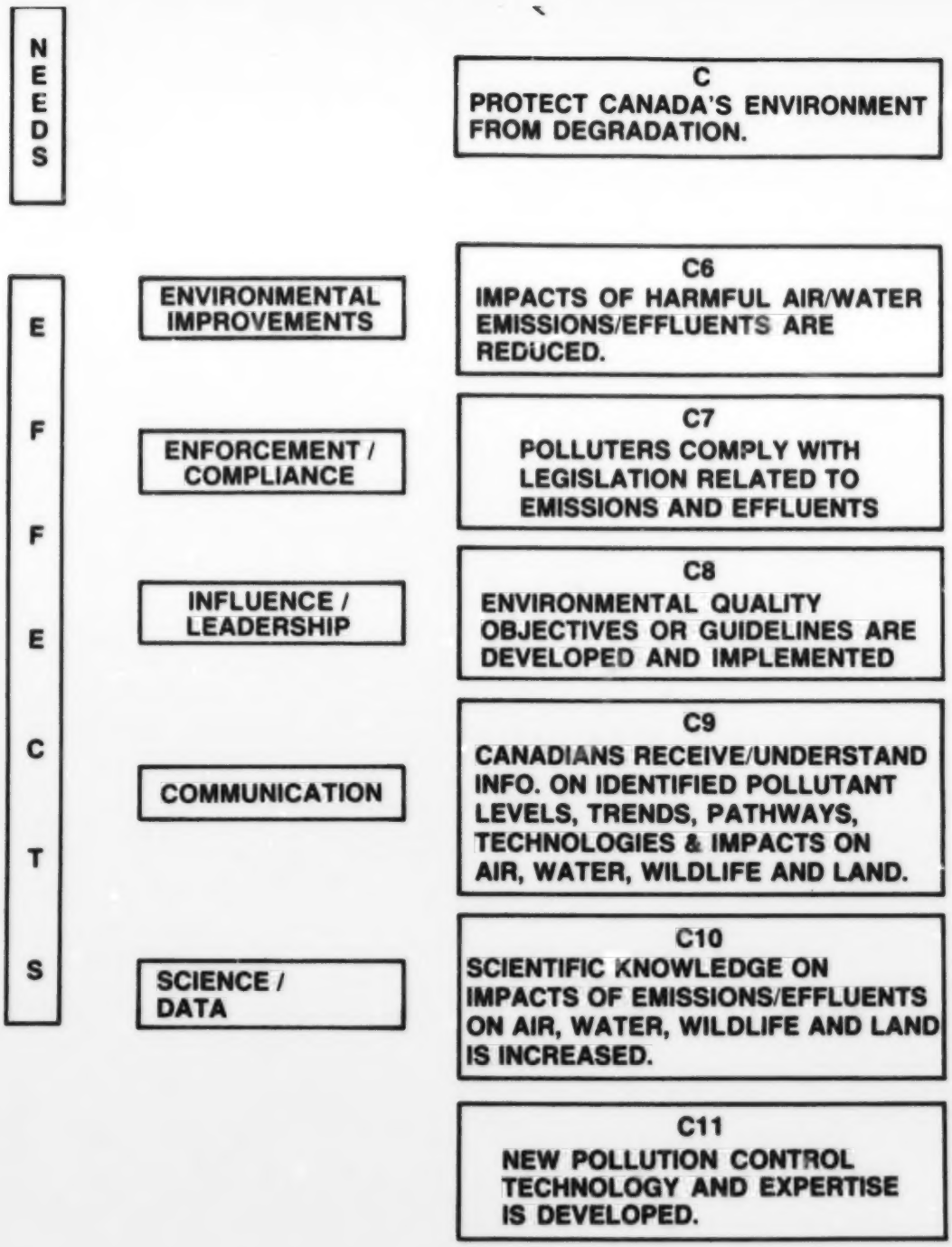
NEEDS
C
PROTECT CANADA'S ENVIRONMENT FROM DEGRADATION.
EFFECTS
ENVIRONMENTAL IMPROVEMENTS
C6
IMPACTS OF HARMFUL AIR/WATER EMISSIONS/EFFLUENTS ARE REDUCED.
ENFORCEMENT / COMPLIANCE
C7
POLLUTERS COMPLY WITH LEGISLATION RELATED TO EMISSIONS AND EFFLUENTS
INFLUENCE / LEADERSHIP
C8
ENVIRONMENTAL QUALITY OBJECTIVES OR GUIDELINES ARE DEVELOPED AND IMPLEMENTED
COMMUNICATION
C9
CANADIANS RECEIVE/UNDERSTAND INFO. ON IDENTIFIED POLLUTANT LEVELS, TRENDS, PATHWAYS, TECHNOLOGIES & IMPACTS ON AIR, WATER, WILDLIFE AND LAND.
SCIENCE / DATA
C10
SCIENTIFIC KNOWLEDGE ON IMPACTS OF EMISSIONS/EFFLUENTS ON AIR, WATER, WILDLIFE AND LAND IS INCREASED.
C11
NEW POLLUTION CONTROL TECHNOLOGY AND EXPERTISE IS DEVELOPED.

FIGURE 10 RELATIONSHIP BETWEEN EFFECTS AND NEEDS

There are two types of results defined in the model. As previously discussed, the first type depicts the environmental improvements that are expected to be achieved by C&P programs. The second type is "strategic" in the sense that this level highlights how C&P is approaching the resolution of a particular environmental problem. At this second level, four generic strategies have been selected for inclusion in the model. These are: 1) science/data, which includes all strategies devoted to the development of environmental knowledge (eg. research, data collection); 2) communication, which incorporates the results expected from communicating environmental knowledge to potential users of that knowledge; 3) influence/leadership, which emphasizes that C&P's role is often limited to trying to get others to act "responsibly" with respect to environmental problems; and 4) enforcement/compliance, which includes all results expected from the application of regulations inherent in environmental conservation/protection legislation.

To illustrate the relationship between "strategic" and "environmental" results, Figure 10 provides an example taken from Need C. One of the "streams" under that Need is headed by the Environmental Improvement "Impacts of Harmful Air/Water Emissions/Effluents are Reduced" (C6). C&P attempts to achieve that particular result through the "subsidiary" results contained in boxes C7 to C11. (In other words, the sum of the results contained in boxes C7 to C11 is C&P's contribution to the achievement of C6.)

III C&P RESULTS MODEL

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CONSERVATION A

MISSION

CONTRIBUTE
CONSERVATI
PROTECTION
CANADIAN A
GLOBAL ENVI
MENTS FOR S
BENEFITS

NEEDS

A
CONSERVE CANADA'S NATURAL RESOURCES

EFFECTS
Environmental Improvements

A1
MIGRATORY BIRD POPULATIONS ARE SUSTAINED OR INCREASED

A7
WILDLIFE HABITAT IS MAINTAINED OR ENHANCED

A13
ENDANGERED SPECIES ARE REESTABLISHED AND REHABILITATED

A18
CANADA'S ACCESS (QUALITY/QUANTITY) TO INTERNATIONAL WATER AND WILDLIFE RESOURCES IS MAINTAINED OR ENHANCED

A24
REGIONAL ACCESS TO GOOD QUALITY WATER AND WILDLIFE RESOURCES IS MAINTAINED OR IMPROVED

A29
DAMAGES RE
FROM NATUR
HAZARDS ARE
REDUCED

Enforcement / Compliance

A2
CANADIANS COMPLY WITH LEGISLATION AFFECTING MIGRATORY BIRD MANAGEMENT

A8
FEDERAL, PROVINCIAL AND PRIVATE LAND MANAGERS COMPLY WITH LEGISLATION TO PROTECT WILDLIFE HABITAT

A14
WILDLIFE MANAGERS AND CANADIANS COMPLY WITH LEGISLATION TO PROTECT ENDANGERED SPECIES

A19
LAND MANAGERS COMPLY WITH LEGISLATION RELATED TO CHANGES TO CANADA-U.S. RIVER SYSTEMS

Influence / Leadership

A3
CANADIANS IMPLEMENT CO-OPERATIVE PROGRAMS WITH C & P TO INCREASE ENJOYMENT OF MIGRATORY BIRDS

A9
CANADIANS ACTIVELY SUPPORT WILDLIFE HABITAT MANAGEMENT, ENHANCEMENT AND MAINTENANCE

A15
PROGRAMS ARE IN PLACE TO PROTECT/REHABILITATE ENDANGERED SPECIES IN COOPERATION WITH OTHER STAKEHOLDERS

A20
EXTERNAL AFFAIRS, IJC & OTHER INTERNATIONAL FORA INCORPORATE C & P ADVICE ON WATER/WILDLIFE

A25
AGREEMENTS ON THE MANAGEMENT OF SHARED (INTERPROVINCIAL/TERRITORIAL) WATER AND WILDLIFE RESOURCES ARE IN PLACE

A30
FLOOD PLAIN
RESIDENTS AR
PROTECTED F
MAJOR FLOOD
EVENTS

A4
PROVINCES/USA ACCEPT HARVEST LIMITS FOR GAME BIRDS

A10
LAND MANAGERS INCORPORATE WILDLIFE HABITAT CONCERNS INTO THEIR LAND AND AQUATIC ENVIRONMENTAL MANAGEMENT PRACTICES

A21
AGREEMENTS FOR THE MANAGEMENT OF CANADA - INTERNATIONAL WATER/WILDLIFE RESOURCES ARE IN PLACE

A26
WATER AND WILDLIFE MANAGEMENT PLANS FOR MAJOR DRAINAGE BASINS AND REGIONS ARE IN PLACE

A31
LAND MANAG
IMPLEMENT L
USE PRACTICE
DESIGNED TO
REDUCE DAM
CAUSED BY FL
AND MIGRATO
BIRDS

Communications

A5
CANADIANS RECEIVE AND UNDERSTAND INFORMATION ON THE STATUS, TRENDS AND BEHAVIOUR OF MIGRATORY BIRD POPULATIONS

A11
CANADIANS RECEIVE AND UNDERSTAND INFORMATION ON THE LOCATION, DYNAMICS AND SIGNIFICANCE OF WILDLIFE HABITAT

A16
CANADIANS RECEIVE AND UNDERSTAND INFORMATION ON THE STATUS & TRENDS OF ENDANGERED SPECIES POPULATIONS

A22
CANADIANS RECEIVE AND UNDERSTAND INFORMATION ON THE NATURE AND EXTENT OF CANADA-INTERNATIONAL WATER AND WILDLIFE ISSUES

A27
CANADIANS RECEIVE AND UNDERSTAND INFORMATION ON THE NATURE AND EXTENT OF REGIONAL WATER AND WILDLIFE ISSUES

A32
CANADIANS R
AND UNDERST
MATION ON FL
AREAS AND O
FLOOD EMERG

Science / Data

A6
SCIENTIFIC KNOWLEDGE ON THE STATUS, TRENDS, BEHAVIOUR OF MIGRATORY BIRD POPULATIONS IS INCREASED

A12
SCIENTIFIC KNOWLEDGE ON THE LOCATION, DYNAMICS AND SIGNIFICANCE OF WILDLIFE HABITAT IS INCREASED

A17
SCIENTIFIC KNOWLEDGE ON THE STATUS AND TRENDS OF ENDANGERED SPECIES IS INCREASED

A23
SCIENTIFIC KNOWLEDGE AND EXPERTISE ON INTERNATIONAL WATER AND WILDLIFE ISSUES IS INCREASED

A28
SCIENTIFIC KNOWLEDGE ON THE NATURE AND EXTENT OF REGIONAL WATER AND WILDLIFE ISSUES IS INCREASED

A33
SCIENTIFIC KN
ON THE NATU
EXTENT OF NA
HAZARDS AND
ECONOMIC IM
INCREASED

ACTIVITIES

- MIGRATORY BIRDS MANAGEMENT
- HABITAT MANAGEMENT
- OTHER WILDLIFE MANAGEMENT
- WETLANDS MANAGEMENT
- CROP LOSS MANAGEMENT
- FLOOD DAMAGE REDUCTION
- PROTECTION OF INTERNATIONAL WATER AND WILDLIFE INTERESTS
- WATER QUALITY AND SUPPLY MANAGEMENT
- ENDANGERED SPECIES
- DATA AND RESEARCH

ION AND PROTECTION

MARCH 1988

CONTRIBUTE TO THE CONSERVATION AND PROTECTION OF THE CANADIAN AND GLOBAL ENVIRONMENTS FOR SUSTAINED BENEFITS

B
MANAGE ECOLOGICAL AND ECONOMIC INTERDEPENDENCE

C
PROTECT CANADA'S ENVIRONMENT FROM DEGRADATION

A29
DAMAGES RESULTING FROM NATURAL HAZARDS ARE REDUCED

B1
CONSERVATION, DEVELOPMENT AND PROTECTION EFFORTS COMBINE TO PRODUCE A HEALTHY CANADIAN ECOSYSTEM AND ECONOMY

C1
ADVERSE ENVIRONMENTAL IMPACTS OF NEW INITIATIVES ARE REDUCED

C6
IMPACTS OF HARMFUL AIR & WATER EMISSIONS/EFFLUENTS ARE REDUCED

C12
HARMFUL IMPACTS OF TOXICS AND OTHER PRODUCTS ARE CONTROLLED

C17
ENVIRONMENTAL QUALITY AT SPILL AND WASTE SITES IS RESTORED TO ACCEPTABLE LEVELS

C7
POLLUTERS COMPLY WITH LEGISLATION RELATED TO EMISSIONS AND EFFLUENTS

C13
USERS COMPLY WITH LEGISLATION ON THE INTRODUCTION, USE, TRANSPORTATION AND DISPOSAL OF TOXICS AND OTHER PRODUCTS

C18
POLLUTERS COMPLY WITH LEGISLATION ON THE CLEAN-UP OF SPILL/WASTE SITES

A30
FLOOD PLAIN RESIDENTS ARE PROTECTED FROM MAJOR FLOODING EVENTS

B2
C&P PROGRAMS ARE MANAGED EFFECTIVELY & EFFICIENTLY

B5
ENVIRONMENTAL AND RESOURCE VALUE/PRICING CONSIDERATIONS ARE INTEGRATED INTO ECONOMIC PLANNING AND DECISION MAKING

C2
PROPONENTS INCORPORATE C & P ADVICE INTO DEVELOPMENT INITIATIVES

C8
ENVIRONMENTAL QUALITY OBJECTIVES OR GUIDELINES ARE DEVELOPED AND IMPLEMENTED

C14
CODES/GUIDELINES FOR LIFECYCLE MANAGEMENT OF CHEMICALS ARE DEVELOPED AND IMPLEMENTED

C19
CONTINGENCY PLANS AND OTHER MECHANISMS EXIST FOR DEALING WITH ENVIRONMENTAL POLLUTION EMERGENCIES

A31
LAND MANAGERS IMPLEMENT LAND USE PRACTICES DESIGNED TO REDUCE DAMAGES CAUSED BY FLOODS AND MIGRATORY BIRDS

B3
C & P PROGRAMS AND POLICIES ARE DEVELOPED TO RESPOND TO NEW ENVIRONMENTAL ISSUES AND OPPORTUNITIES

B6
C&P ENVIRONMENTAL SCIENCE/RESEARCH IS INTERNATIONALLY RECOGNIZED

A32
CANADIANS RECEIVE AND UNDERSTAND INFORMATION ON FLOOD RISK AREAS AND ON IMPENDING FLOOD EMERGENCIES

B4
CANADIANS RECEIVE EARLY WARNINGS & ISSUE SENSING ON EMERGING CONSERVATION/PROTECTION ISSUES

B7
CANADIANS ARE PROVIDED INTEGRATED INFORMATION ON THE STATE OF CANADA'S ENVIRONMENT

C3
CANADIANS RECEIVE AND UNDERSTAND C & P ADVICE ON ENVIRONMENTAL ASSESSMENT

C9
CANADIANS RECEIVE/UNDERSTAND INFORMATION ON IDENTIFIED POLLUTANT LEVELS, TRENDS, PATHWAYS TECHNOLOGIES, AND IMPACTS ON AIR, WATER, WILDLIFE AND LAND

C15
CANADIANS RECEIVE/UNDERSTAND INFORMATION ON THE LIFECYCLE OF CHEMICALS IN COMMERCE AND THEIR IMPACTS ON AIR, WATER, WILDLIFE AND LAND

C20
CANADIANS RECEIVE AND UNDERSTAND INFORMATION AND ADVICE ON HAZARDOUS WASTE AND SPILL SITE CLEANUP

A33
SCIENTIFIC KNOWLEDGE ON THE NATURE AND EXTENT OF NATURAL HAZARDS AND THEIR ECONOMIC IMPACTS IS INCREASED

B8
INTEGRATED SCIENTIFIC KNOWLEDGE ON THE POLLUTION, USE, VALUE AND STATUS OF THE CANADIAN ECOSYSTEM IS INCREASED

C4
GUIDELINES FOR ENVIRONMENTAL ASSESSMENT ARE DEVELOPED

C10
SCIENTIFIC KNOWLEDGE ON IMPACTS OF EMISSIONS/EFFLUENTS ON AIR, WATER, WILDLIFE AND LAND IS INCREASED

C16
SCIENTIFIC KNOWLEDGE RELATED TO LIFE CYCLE MANAGEMENT OF TOXICS AND THEIR IMPACTS IS INCREASED

C21
CONTROL TECHNOLOGIES FOR CLEAN-UP ARE DEVELOPED

C5
BASELINE KNOWLEDGE TO FACILITATE IMPACT ASSESSMENT IS INCREASED

C11
NEW POLLUTION CONTROL TECHNOLOGY AND EXPERTISE IS DEVELOPED

STATE OF THE ENVIRONMENT

ENVIRONMENT AND ECONOMY

NEW PROGRAM AND POLICY DEVELOPMENT

PROVISION OF FINANCE, ADMINISTRATION, PLANNING, PERSONNEL SERVICES

EARLY WARNING OF ENVIRONMENTAL ISSUES

ACID RAIN

LEAD

TOXICS

PESTICIDES

TOXIC RAIN

EMERGENCIES

CLEAN-UP

CEPA, ECA

ENVIRONMENTAL QUALITY OBJECTIVES

CODES OF PRACTICE

IV C&P OPERATIONAL PLANNING FRAMEWORK

An Operational Planning Framework (OPF) is the basic structure used by federal departments to manage the resources allocated to them by Parliament. As a framework for the program planning and review process, the OPF is used externally to present objectives, planned results, resource requirements, as well as to report on results achieved and expenditures incurred.

Internally, the OPF provides a framework for constructing C&P national programs, as well as for developing the data that are necessary for reporting on these programs to others.

The importance of the OPF can best be appreciated by realizing that it is the basic structure used by Departments to report their Multi-Year Operational Plans (MYOP), Estimates, Public Accounts, and other submissions to Central Agencies, such as Treasury Board.

Figure 11 depicts the four sub-activities contained in the present C&P OPF:

- Inland Waters Conservation
- Wildlife Conservation
- Environmental Protection
- Management and Common Support.

This is an interim structure which was implemented after the consolidation of ECS and EPS into C&P. A key limitation of this structure is that it highlights the major organizational components of C&P rather than C&P itself. In practice, this focus on C&P's components has three undesirable consequences. First, undue emphasis ultimately gets placed on the activities of these organizations, rather than the results they are intended to achieve. Second, the development of a common vision of C&P as an entity is inhibited. And third, by emphasizing (vertical) organizations it becomes more difficult to shift C&P resources horizontally in order to respond to changing program priorities.

All of these deficiencies will become more important with the recent launching by Treasury Board of its Increased Ministerial Authority and Accountability (IMAA) exercise. Under the IMAA regime, Departments will be provided with increased authority to

reallocate resources internally, while being subject to greater accountability for delivering program results. This accountability will be rendered annually through the Estimates (Part III) and a new Annual Management Report, and cyclically through a major Accountability Review by Treasury Board. A key consideration in Treasury Board's assessment of C&P's future resource requirements will be C&P's ability to demonstrate how the resources will contribute to the achievements of planned results.

As previously indicated, Conservation and Protection recognized early that the results definition modelling process offered an interesting opportunity to meet the Treasury Board requirement for a results-oriented OPF. Chapters II and III above outlined the C&P Results Model in some detail. In this chapter, a revised OPF is suggested for C&P, based on that Results Model.

Figure 12 illustrates the conceptual linkages between a results model and an OPF. In general terms, the "Mission" and "Needs" of the Results Model relate to the "Activity" and "Sub Activities" respectively in the OPF.

When these definitions are applied, the C&P component of the DOE OPF can move from one that is organizationally based (Figure 11) to one that emphasizes environmental results (Figure 13). Note that the new C&P OPF structure is directly related to the new C&P Results Model.

It is important to recognize that an OPF is defined by a Department - not by a component of a Department. For this reason, only DOE can officially change the OPF. All that C&P is attempting to do in restating its portion of the DOE OPF is to present its own programs in results terms (as required by IMAA), and to further consolidate its own program activities into a more cohesive, public-oriented whole.

Under the above assumptions, when the recommended structure of the C&P OPF is combined with the new C&P results model, a basis exists for a new C&P OPF. A series of detailed definitions that correspond to specific IMAA requirements has been developed and is presented in Appendix A.

Figure 11

ENVIRONMENT CANADA OPF
PREVIOUS C&P COMPONENT

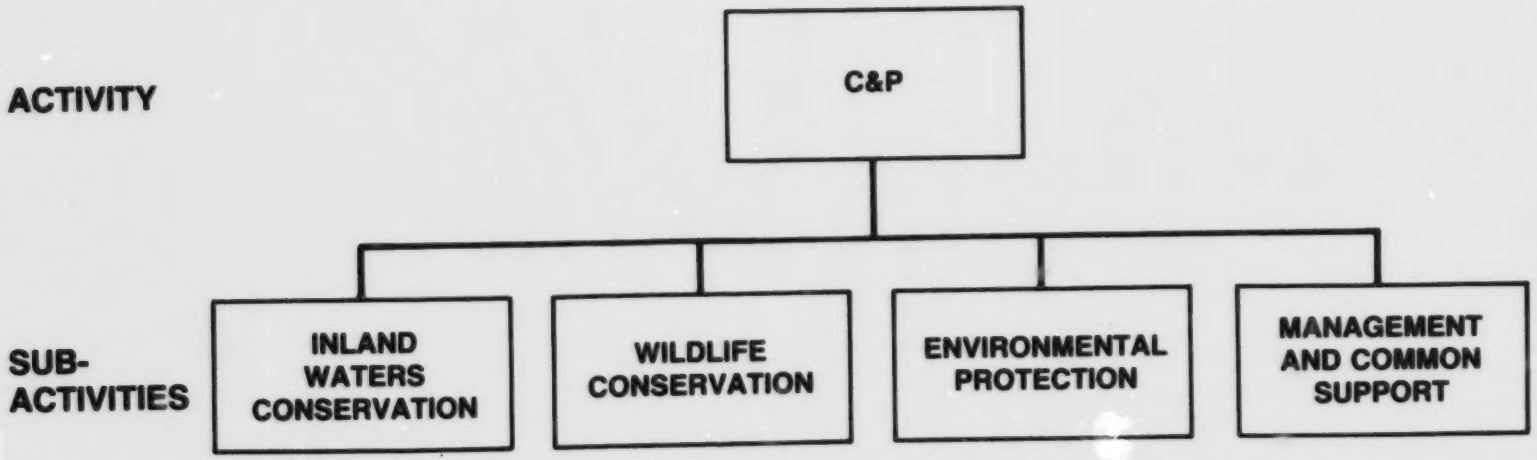


Figure 12

RESULTS MODEL - OPERATIONAL PLANNING FRAMEWORK (OPF) LINKAGES

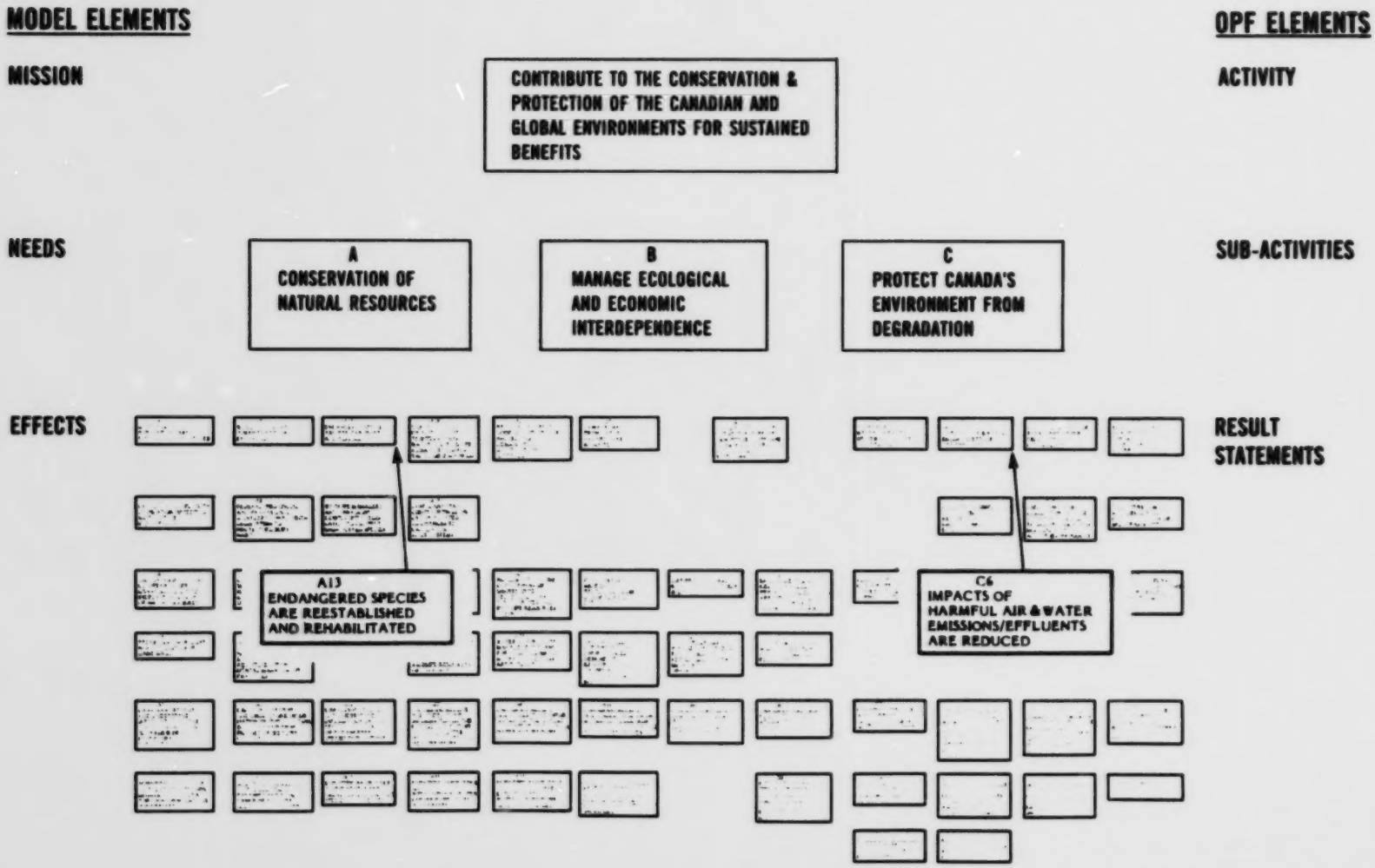
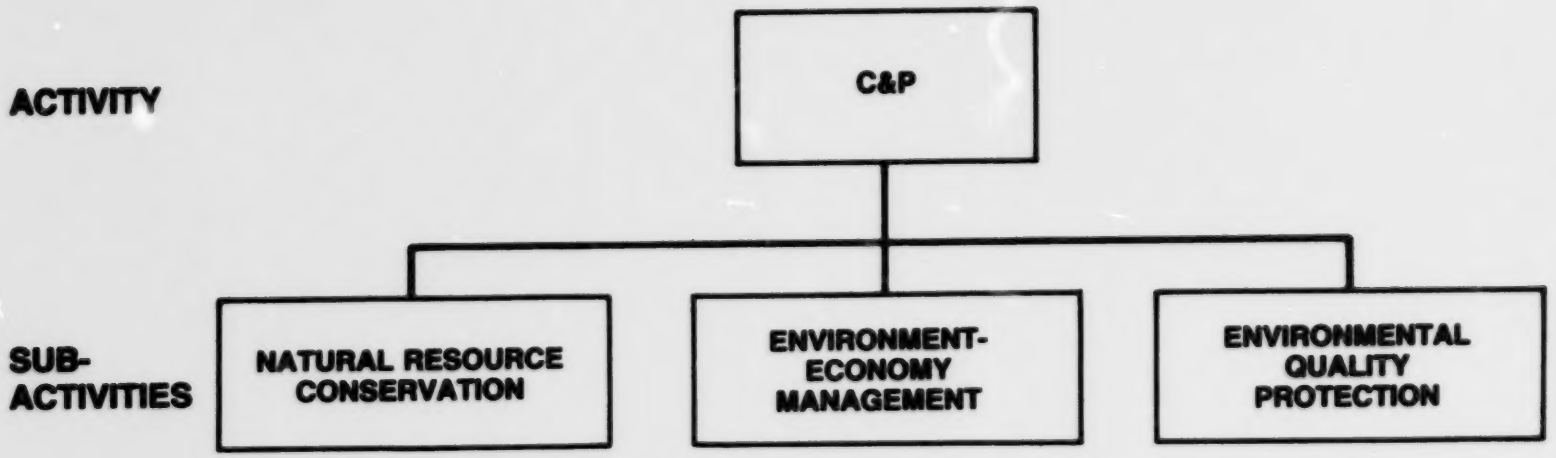


Figure 13

ENVIRONMENT CANADA OPF
NEW C&P COMPONENT



V C&P: MANAGING FOR RESULTS

Completion of the C&P National Results Model and the related Operational Planning Framework are only initial steps toward improved program delivery. In order to realize the full potential of these exercises, further action is required on several fronts. In particular, the model holds significant promise for improving C&P's communications, program planning, and performance measurement efforts. Specific recommendations in each of these areas are presented below, along with recommendations on implementation.

1. COMMUNICATIONS

1.1 The C&P National Management Conference held in the fall of 1987 emphasized the need to complete a C&P results definition model, and to use this model as a tool for better communications. Results definition models can be extremely useful for communications purposes, since they provide a concise visual image of an organization's mission. The 1987 conference also recognized that it is possible to look at the communicatons problem from both internal and external perspectives. Internally, the communications objectives can be generally stated as: 1) to promote staff awareness; 2) to build employee morale; and 3) to continue the process of corporate culture-building within C&P. Externally, the communications objectives can be viewed as: 1) to inform the outside publics (eg. media, universities, foreigners, provinces, ENGO's etc.) of C&P's programs and aspirations; or 2) to acquire and maintain program resources from central agencies.

1.2 A communications package should be prepared based on the C&P Results Model. The time and effort expended to date on the construction of the model merits the use of professional expertise in developing this package. This package should be designed primarily for general use by C&P's external publics (e.g. ENGOs, professional associations, their federal departments, industry, etc.), but it should be designed in such a way that it permits tailoring to the specific needs of individual groups. The objective should be to retain maximum flexibility in the design of the communications tools. Special consideration should be given to the use of such communications vehicles as slide presentations and videos.

1.3 Any communication of the model should focus on the results of C&P programs, rather than on the processes (strategies or activities) that are employed to achieve these results. Most of the people with whom we will be communicating (even our own staff, who have a vested interest in the activities) will likely care more about the former than about the latter.

1.4 Future management decisions should always be stated in terms of the model. The model represents a consolidated vision of C&P, and continual reference to the model reaffirms management's ongoing commitment to that vision. This will not only help with the process of corporate culture-building, it will help our employees to better understand the underlying rationale for the work they are doing, and for the management decisions which affect that work. The model should be communicated to C&P staff at all feasible opportunities, but existing fora should be used to do so wherever possible. "Special sessions" should not be held to "announce" the model. The objective here should not be to evangelize, but to slowly build up acceptance of a corporate C&P culture.

2. PROGRAM PLANNING

2.1 Inherent in Treasury Board's Increased Ministerial Authority and Accountability (IMAA) exercise is the objective of enhancing accountability, based on results that are achieved. Treasury Board's apparent intent is to increase the use of results information in its resource allocation decisions. Departments will be expected to have adequate planning processes in place for establishing planned results leading to the submission to Treasury Board of a results-oriented Multi-Year Operational Plan. Accordingly, some form of results-oriented LTOP will be necessary.

2.2 The results model, along with its associated OPF, should provide the basic structure and format for the LTOP exercise. In particular, the results focus of the model should be actively applied to the LTOP, which should result in a more strategic LTOP than is being produced at the moment.

2.3 Strategic program planning occurs when Managers are required to demonstrate how their LTOP statements contribute to the environmental effects defined in the Results Model.

Therefore, Managers at all levels in C&P should hold periodic Strategic Planning Meetings with their staffs to test and to reinforce these linkages.

2.4 Work plans are the "grass roots" element of the planning cycle. Because of this, they are vital to both managers and employees alike. Work planning must be flexible (i.e. it must be able to accommodate changes in priorities within the year); it must be monitored (i.e. it cannot produce so much paper that monitoring is physically impossible); and it must be consistent with other elements of the planning cycle (i.e. it cannot avoid linking program activities to program results).

2.5 The consistency objective can best be achieved by applying the results model concept to the work planning exercise. Since work plans are about projects, there is a natural tendency for them to focus on activities. Although this tendency is normal, managers should never lose sight of the reason why the activities are being contemplated in the first place. In order to cause the local manager to periodically reflect on these reasons, it is recommended that the results model structure be applied even at the work planning level. This means that the work planning format should be consistent with the results format that was previously recommended for the strategic planning and LTOP exercises. Furthermore, as a routine part of the work planning process, C&P managers should also be asked to demonstrate how the activities they are proposing are expected to contribute to the results desired by the organization.

2.6 In short, the ultimate objective is full integration between the strategic results that are desired (as represented by the LTOP s), and the program activities designed to deliver these results (as represented by the Work Plans).

3. PROGRAM ACTIVITY STRUCTURE

3.1 A natural (and desired) consequence of revising the C&P OPF will be that the Program Activity Structure of C&P should also be amended. The PAS is the framework used by Departments for internal program and financial planning and reporting. It is a detailed breakdown of the OPF at lower levels - a sub-system which delineates the OPF from top-to-bottom in basic coding blocks for the structuring of financial and program information. (Refer to Annex B for a

description of the present C&P PAS.) It should be noted that C&P is currently using an interim PAS, which is not internally consistent.

3.2 To correct this situation, it is recommended that the C&P Results Model be explicitly used in the construction of a revised PAS. More specifically, the "Environmental Results" in the C&P Results Model should form the basis for evolving new C&P Programs (or Sub-Sub-Activities) in the revised PAS. Clear and concise definitions of the new C&P Programs must also be developed and incorporated into the revised PAS. Annex A contains comprehensive definitions of the C&P Results Model Effects, which should be very useful in the process of creating the new PAS.

3.3 The direct linkage of the PAS to the results defined in the C&P Model would help to address a deficiency that now exists in C&P's financial and planning systems - a problem that we share with most federal departments. The Auditor General observed in his 1987 Annual Report that financial and operational data are not properly linked in departments, and that financial and planning systems rarely relate resources used to specific results. The Auditor General concluded that the consequence is that "managers seldom have the information to know whether their operations are economic, efficient and effective".

3.4 Whatever PAS is eventually defined for C&P, it must incorporate the management information needs of C&P line managers. To that end, C&P Directors General should be asked to identify their specific information requirements below the C&P Program (or Sub-Sub-Activity) level. These requirements should be communicated to C&P Finance and Administration Branch, so that the necessary Cost or Activity Elements can be incorporated into the financial accounting system.

3.5 It is very important that the required changes to the C&P PAS be undertaken in time for the next planning cycle, beginning in August 1988. Unless visible action is taken to bring C&P program activities into line with the new C&P Model, much of the impetus (and good will) generated by the recent modelling exercise will be dissipated. Furthermore, once the initiative toward progressive change has been lost, it will likely be quite difficult to reactivate.

4. PRIORITY DEVELOPMENT AND RESOURCE ALLOCATION

4.1 Conservation and Protection must assume that current Treasury Board constraints on new resources will continue for the foreseeable future. Accordingly, the need to fund new program activities from within existing reference levels will require more emphasis on the management of priorities than has been necessary in the past.

4.2 The C&P results model can be a useful tool to assist managers in the analysis of these priorities. More specifically, the model can be used to examine such factors as:

- whether or not all of C&P's activities are actually addressing priority needs; or
- which program activities might be good candidates for contracting out, devolution, or down-sizing (in situtations where the returns on effort potential cannot justify the expenditure); or
- the implications of shifting resources among C&P programs.

4.3 Although the results model should not be the only tool used in the analysis, it should be a fundamental part of that analysis. C&P managers should explore all of these potential uses of the model in their routine decision-making.

5. RESULTS MEASUREMENT

5.1 There are two basic reasons why results measurement is important to C&P managers. First and foremost, C&P programs will be better focussed and more effective in the long term if results are continually checked against expectations. Second, Treasury Board's new IMAA process will require us to measure our performance.

Furthermore, there are two types of results that should be measured. First, there is the question of whether or not C&P programs are achieving the intended effects. This is the issue of whether or not we are "doing the right things". Second, there is the question of whether or not our programs are delivered efficiently. This is the issue of whether or not we are "doing things right". Both questions are fundamental to the success of our programs. A Results Measurement system will primarily

address the question of whether or not we are "doing the right things" but should also provide the basis for determining whether our programs are delivered efficiently.

5.2 C&P has already taken some steps in the direction of satisfying these requirements. For example, the existing work planning system already has a performance measurement system built into it. In addition, "Project 10" in EP was an attempt to specify routine (and long term) performance measures for some of the activities of that organization. It was recognized early in this project that substantial work would be required within C&P to develop adequate results measures for the statements that would ultimately emerge in the new C&P results model. For this reason, C&P's Management Information and Accountability Branch (MIAB) prepared a preliminary inventory of all existing results measures for each result statement in the C&P results model. Considerable development work remains to be done before this initial inventory can be considered to be complete.

5.3 Although it is generally known what the IMAA requirements will be, the specifics are not yet clear. Therefore, it would be strategically unwise for C&P to move too quickly to tie ourselves into a rigid performance measurement system that may or may not be compatible with Treasury Board's ultimate view. However, it is evident that results measurement will be a major component of the IMAA exercise, and that C&P may have a significant opportunity to influence the type of results measurement system that will eventually emerge from Treasury Board.

In other words, our objective should be to continue cautiously with the development of performance measures within C&P, while at the same time exploring opportunities to influence the direction that Treasury Board is taking on performance measurement within IMAA.

5.4 It is therefore recommended that an Action Plan be prepared to identify an approach for the development and implementation of a C&P results measurement system. The major components of this Action Plan would be:

- Central Agency requirements concerning results - reporting in relation to exercises such as the IMAA Memorandum of Understanding and Part III of the Estimates;

- C&P management's own requirements for results information;
- a recommended process and mechanism to meet the above-mentioned requirements.

The Action Plan should be tabled at C&P Management Board for approval at the earliest opportunity. In developing the Action Plan, the combined experience of all Directorates (but most notably EP) on the subject of performance measurement should be tapped.

6. IMPLEMENTATION

6.1 With the tabling of this report at C&P Management Board, the mandate of the Results Modelling/OPF Task Force will cease. Both the results model and the associated OPF are designed as tools for C&P managers. Unless managers themselves actively use these tools in their ongoing programs, the full utility of this project will never be realized.

6.2 It is therefore recommended that the formal Steering Committee and Working Group be disbanded. It is likely that Management Board will have to call upon resident expertise within C&P to provide assistance in implementing these recommendations. Since much of this expertise already lies within the existing Steering Committee and Working Group, it is probable that these individuals will continue to be actively involved in the process. This expertise could prove to be particularly useful in responding to any issues raised by Treasury Board in its formal review of the DOE Operational Planning Framework. This is desireable, especially since it will allow for some continuity in the exercise. However, this input should be made where possible on an individual basis.

6.3 The timing of the implementation can vary, depending on the particular recommendation(s) involved. Revisions to the Program Activity Structure and the format of the LTOPs should be made as soon as possible - definitely before the new planning cycle begins this fall. Revisions to the work planning process can afford to wait until the late fall. Results measures can be developed over a longer term - probably one or two years.

ANNEX A

C&P RESULTS MODEL DEFINITIONS

ANNEX A C&P RESULTS MODEL DEFINITIONS

The draft IMAA guidelines which outline how to prepare a departmental Operational Planning Framework suggest that the OPF should contain relatively detailed definitions of: 1) who the clients are for the program that is being described; 2) what the impact(s) of the program is (are) likely to be on these clients; and 3) what specific outputs can be expected if the program is resourced.

These three dimensions are explored in the following definitions. An attempt has been made to define all three variables in terms that relate to the new C&P Results Model. Specifically, "clients" and "program impacts" are enunciated for each environmental result in the model, and "outputs" are defined for all strategic results. "Accountability factors" have been added solely for clarification purposes.

A1
MIGRATORY BIRD POPULATIONS ARE SUSTAINED OR INCREASED

CLIENTS	PROGRAM IMPACTS	ACCOUNTABILITY FACTORS
National and State Governments of other countries	- Canadian Management programs support a myriad of migratory bird user communities in other countries with which Canadian populations are shared, most notably the U.S.A.	- C&P is accountable through External Affairs for Canadian implementation of the Migratory Birds Convention and also enters into agreements concerning shared species with countries such as USSR, Greenland, Latin America and Mexico.
Provinces and Territories	- Federal migratory bird management programs directly support provincial/territorial responsibilities for managing Canadian wildlife on a sustainable basis.	C&P has the responsibility and is accountable for the management of migratory birds to ensure sustainable populations.
Other Canadian federal government departments (especially External Affairs, Agriculture and Forestry).	- C&P directly supports the protection of Canada's sovereign access to a healthy and abundant transboundary migratory bird natural resource.	- C&P is acountable to External Affairs for developing and maintaining a credible Canadian position on the delivery of the Migratory Birds Treaty with the U.S. and in management of shared migratory bird populations with other countries. - Because migratory birds can serve as effective indicators of environmental quality, C&P migratory bird programs complement the resource management programs/mandates of other federal departments.
National and International wildlife conservation agencies (NGOs)	- C&P's migratory bird management program often directly supports the objectives of conservation groups, and vice versa.	
Native Peoples	- Many native peoples can rely on a healthy and abundant migratory bird population to sustain traditional ways of life.	- DIAND is responsible for managing federal programs related to native peoples. C&P activities provide advice to DIAND on management of migratory bird populations which is usually incorporated.
Hunters, bird watchers, naturalists and the tourism/recreation sectors which support these clients.	- Access to migratory birds enables these groups to generate both direct and indirect social and economic benefits through their various uses.	- C&P is not directly accountable to any of these groups. However, all of them have a direct interest in migratory bird management, and all of them exercise some influence over C&P programs through the provinces/territories, or through the wildlife conservation agencies which represent their interests.
Universities	- Funding for research projects.	

	OUTPUTS	ACCOUNTABILITY FACTORS
A2 CANADIANS COMPLY WITH LEGISLATION AFFECTING MIGRATORY BIRD MANAGEMENT	- An adequate regulatory regime (permit system) to regulate access to migratory birds.	- C&P is responsible for administering legislation (MBCA, GEA, CWA) designed to protect and manage migratory birds.
	- Enforcement and compliance with this regulatory regime.	
A3 CANADIANS IMPLEMENT CO-OPERATIVE PROGRAMS WITH C & P TO INCREASE ENJOYMENT OF MIGRATORY BIRDS	- Agreements with stakeholders covering all major migratory bird management problems in Canada.	- C&P has the lead in migratory bird management in Canada but cooperates and coordinates activities with provinces, territories to ensure that populations are well managed nationally.
	- Compliance with these agreements by all signatories.	
A4 PROVINCES/USA ACCEPT HARVEST LIMITS FOR GAME BIRDS	- Agreements with provinces and U.S. establishing annual harvest limits.	- C&P, on behalf of the Minister of Environment, is responsible for setting annual harvest limits in consultation with the provinces and U.S.
	- Annual review of adequacy of existing harvest limits.	
A5 CANADIANS RECEIVE AND UNDERSTAND INFORMATION ON THE STATUS, TRENDS AND BEHAVIOUR OF MIGRATORY BIRD POPULATIONS	- Public reports, brochures, displays, seminars, TV ads, lectures.	- C&P has an obligation to communicate program activities to the public and to ensure that regulations and harvest limits are known.
A6 SCIENTIFIC KNOWLEDGE ON THE STATUS, TRENDS, BEHAVIOUR OF MIGRATORY BIRD POPULATIONS IS INCREASED	- Research studies and technical reports.	
	- Baseline data.	
	- Periodic review of client needs.	
	- Interpretive studies of status and trends in key migratory bird management variables.	- C&P has the direct responsibilitiy to conduct migratory bird research and surveys to obtain information for management decisions.

A7
WILDLIFE HABITAT IS MAINTAINED OR ENHANCED

CLIENTS	PROGRAM IMPACTS	ACCOUNTABILITY FACTORS
National and state governments of other countries.	- C&P habitat protection programs provide a basis for healthy and productive wildlife populations, especially migratory birds.	- C&P is responsible for NWA's and MBS under CWA and MBCA. We are also responsible for obtaining suggestions and submitting recommendations to IUCN for the protection of wetlands of International Importance under RAMSAR.
Provinces and Territories	- Sustained wildlife habitat provides a basis for all the essential parts of the life cycle of wildlife (breeding, feeding, staging, moulting and wintering).	- C&P acts as an honest broker in dealing with provinces/territories and other departments in habitats not owned by us. Incentives for effective land management and for habitat conservation and enhancement are currently being considered through such programs such as the NAWMP.
Other Canadian federal government departments (especially AgCan)	- C&P efforts to conserve wildlife habitat are complementary to the soil and water conservation programs of AgCan.	
National and International Wildlife Conservation Agencies (NGOs)	- Many highly committed habitat enhancement organizations are active in Canada. C&P efforts in this area directly support the objectives of these groups and vice versa.	
Private landowners, especially in the Agriculture and Forestry communities.	- Co-operative habitat management programs with C&P benefit landowners through the enhanced overall productivity of their land.	
Universities	- Research funds accrue to universities where the habitat research is performed in the private sector.	- Liaison with Universities is encouraged especially when certain areas of expertise are required.
Hunters, naturalists, bird watchers and the tourism/ recreation sectors which support these clients.	- Although no hunting is permitted, except by permits, on protected lands, access is often available to naturalists. These groups can experience enhanced contact with wildlife in their natural habitats. All of these groups generate social and economic benefits by virtue of their access to sustained wildlife habitat.	- Coordination is expected of C&P by provinces/territories and NGO's for wetlands or habitat protection, C&P enters into agreements with various organizations i.e. Ducks Unlimited, NI&C for management of habitats.

	OUTPUTS	ACCOUNTABILITY FACTORS
A8 FEDERAL, PROVINCIAL AND PRIVATE LAND MANAGERS COMPLY WITH LEGISLATION TO PROTECT WILDLIFE HABITAT	- An effective regulatory regime (permit system) to protect habitat areas. - Enforcement and compliance with this regulatory regime.	- C&P is responsible for the protection of migratory bird sanctuaries under the auspices of the Migratory Birds Convention Act - MBS regulations are enforced and complied with.
A9 CANADIANS ACTIVELY SUPPORT WILDLIFE HABITAT MANAGEMENT, ENHANCEMENT AND MAINTENANCE	- Active programs by key conservation agencies to protect or enhance wildlife habitat.	- National Wildlife Areas are protected under the CWA and compliance and enforcement are the responsibility of C&P.
A10 LAND MANAGERS INCORPORATE WILDLIFE HABITAT CONCERNS INTO THEIR LAND AND AQUATIC ENVIRONMENTAL MANAGEMENT PRACTICES	- Effective agreements with major stakeholders covering all major wetland and other habitat management problems in Canada. - Compliance with these agreements by all signatories.	- Agreements are arranged with various stakeholders such as provinces/territories/PU for effective management of critical migrating bird habitats.
A11 CANADIANS RECEIVE AND UNDERSTAND INFORMATION ON THE LOCATION, DYNAMICS AND SIGNIFICANCE OF WILDLIFE HABITAT	- Maps brochures, displays, and general publications illustrating the significance of wildlife habitats.	- C&P is responsible for the development of comprehensive information requirements with regard to habitat protection and enhancement nationally.
A12 SCIENTIFIC KNOWLEDGE ON THE LOCATION, DYNAMICS AND SIGNIFICANCE OF WILDLIFE HABITAT IS INCREASED	- Socio-economic information on the value of wetlands and other wildlife habitat to Canadians. - Research studies and technical reports on the habitat requirements of wildlife.	- The ecology of wetlands and other wildlife habitats are important for valid management decisions.

A13
ENDANGERED SPECIES
ARE REESTABLISHED
AND REHABILITATED

CLIENTS	PROGRAM IMPACTS	ACCOUNTABILITY FACTORS
International and National Conservation Organizations.	- Canada is perceived as a credible contributor to world efforts to maintain global species diversity.	- C&P (CWS) is a world leader in the conservation of wetlands of international importance and controlling international Trade in Endangered Species.
Private Landowners	- Some benefits accrue to landowners in the form of funds to rehabilitate endangered species in their natural habitats.	C&P (CWS) is involved in the development of RENEW-Recovery of Nationally Endangered Wildlife and is seeking funding to further coordinate and prepare recovery plans and set up recovery teams for endangered species in Canada.
Universities	- Research funds accrue to universities for studies of endangered species.	Much of the work is coordinated with the provinces/territories and major NGO's. However, in endangered species that are migratory birds C&P has ultimate responsibility. C&P provides advice and gives recommendations to External Affairs on questions related to endangered species internationally.
Provinces and Territories	- Because species' diversity is one indicator of environmental quality, C&P efforts to protect endangered species complement the environmental management programs of all levels of government.	
Other federal government departments (especially External Affairs).	- C&P endangered species programs directly support Canada's commitments to other nations under international agreements.	

	OUTPUTS	ACCOUNTABILITY FACTORS
A16 WILDLIFE MANAGERS AND CANADIANS COMPLY WITH LEGISLATION TO PROTECT ENDANGERED SPECIES	- An effective regulatory regime to protect endangered species. - Enforcement and compliance with this regulatory regime.	- Although most endangered species fall within the responsibilities of the provinces, C&P has paramount responsibility if the endangered species are migratory birds and a coordinating role for national program delivery if they are not, through agreements, consultations with the provinces/territories and various non-government organizations such as WWF, CNF, etc.
A13 PROGRAMS ARE IN PLACE TO PROTECT/ REHABILITATE ENDANGERED SPECIES IN COOPERATION WITH OTHER STAKEHOLDERS	- Agreements with stakeholders (both domestic and international) covering all major endangered species problems in which Canada has an interest. - Agreements with private landowners to rehabilitate certain nationally significant species on their land. - Compliance with these agreements by all signatories. - Recovery plans for all nationally significant endangered species.	- C&P can take a more proactive role under enabling legislation of CWA. - C&P has an obligation to inform all stakeholders of the status of endangered species in Canada as part of the function of secretariat to COSEWIC.
A14 CANADIANS RECEIVE AND UNDERSTAND INFORMATION ON THE STATUS & TRENDS OF ENDANGERED SPECIES POPULATIONS	- Brochures, pamphlets, public reports.	
A17 SCIENTIFIC KNOWLEDGE ON THE STATUS AND TRENDS OF ENDANGERED SPECIES IS INCREASED	- Interpretive studies on status and trends of endangered species. - Baseline data. - Research studies and technical reports.	

A18
CANADA'S ACCESS (QUALITY/QUANTITY) TO INTERNATIONAL WATER AND WILDLIFE RESOURCES IS MAINTAINED OR ENHANCED

CLIENTS	PROGRAM IMPACTS	ACCOUNTABILITY FACTORS
- Provinces and Territories	- Protection of provincial/Territorial access to provincial water and wildlife resources that cross the Canadian border.	- C&P has the responsibility to ensure equitable access to wildlife populations through international management boards, agreements, etc.
	- Provincial interests in boundary waters are protected and promoted.	- Provincial objectives are achieved in dealing with US under current international arrangements.
- Other federal government departments (especially External Affairs).	- Direct suppport for the protection of Canada's sovereign access to an abundant supply of good quality transboundary water and wildlife resources.	- C&P provides advice to EA based on sound ecological information.
	- Canada's interests are served and obligations carried out in boundary waters shared with the US.	- Timely technical and policy advice are provided to uphold principles of the Boundary Waters Treaty and International Rivers Improvement Act.
- International water and wildlife conservation/ management organizations (IJC, UNEP, IWCN, IWRB, etc.)	Canadian advice is often a fundamental component of the decisions made by these organizations.	C&P has the responsibility to provide information and advice to various international organizations and countries on matters related to wildlife conservation.
	- C&P transboundary water and wildlife programs directly support Canada's commitments to other nations under international agreements.	- C&P is a leader in international wildlife conservation through various international fora.

	OUTPUTS	ACCOUNTABILITY FACTORS
A19 LAND MANAGERS COMPLY WITH LEGISLATION RELATED TO CHANGES TO CANADA-U.S. RIVER SYSTEMS	- An effective regulatory regime to control changes in Canadian land uses which might adversely affect Canada-U.S. river systems. - Enforcement of, and compliance with, this regulatory regime.	
A20 EXTERNAL AFFAIRS, IJC & OTHER INTERNATIONAL FORA INCORPORATE C & P ADVICE ON WATER/ WILDLIFE	- Technical assistance and guidance provided to Canada-U.S. (including states and provinces) investigative bodies to resolve issues. - Advice to External Affairs, IJC, etc. on the management of water and wildlife resources which cross the Canadian border.	- Parties in Canada meet international obligations. Canadian interests are promoted and protected. - C&P is responsible for giving advice and recommendations to EA on international wildlife populations - also part of international management boards (scientific) i.e. Porcupine Caribou, etc.
A21 AGREEMENTS FOR THE MANAGEMENT OF CANADA - INTERNATIONAL WATER/ WILDLIFE RESOURCES ARE IN PLACE	- Technical assistance and policy advice assists in issue resolution. - Agreements with provinces/territories, US/ states, and NGOs covering all significant transboundary water and wildlife issues affecting Canada. - Technical and policy advice are provided to carry out terms of existing agreements and to identify the need/nature of new agreements to secure Canada's interests.	- Timeliness, practicality and focus of advice consistent with objectives of these C&P objectives and leads to resolution. - Monitor progress in carrying out terms of existing agreements. - Conduct a watching brief and provide advice (to External Affairs) on need for future agreements on a site (basin, region) and issue-specific basis.
A22 CANADIANS RECEIVE AND UNDERSTAND INFORMATION ON THE NATURE AND EXTENT OF CANADA-INTERNATIONAL WATER AND WILDLIFE ISSUES	- Brochures, pamphlets, and public reports on the state of Canada's transboundary water and wildlife resources. - Technical information is provided to Canadian resource use groups and provinces; and the general public is informed of issues of concern.	- Frequency and focus of information is responsive and relevant to client interests.
A23 SCIENTIFIC KNOWLEDGE AND EXPERTISE ON INTERNATIONAL WATER AND WILDLIFE ISSUES IS INCREASED	- International agreements establishing co-operative research on wildlife. - Interpretive studies on the state and trends which exist in transboundary water and wildlife resource stocks and quality. - Research studies and technical reports on transboundary water and wildlife management issues. - Baseline data on quality and quantity of Canada/U.S. waters.	- International management and research agreements are developed and prepared by CWS for wildlife populations that are international in scope. Information on other wildlife research and management is prepared by C&P.

A2h
REGIONAL ACCESS TO GOOD QUALITY WATER AND WILDLIFE RESOURCES IS MAINTAINED OR IMPROVED

CLIENTS	PROGRAM IMPACTS	ACCOUNTABILITY FACTORS
Provinces and Territories	- C&P water and wildlife management programs directly support provincial/territorial Constitutional responsibilities for managing these resources on a sustained basis.	- Agreements and Management Boards are set up with CWS representation in areas of transboundary wildlife populations.
Other Canadian federal departments (especially AgCan, NHW and DFO).	- Because water and wildlife can serve as effective indicators of environmental quality, C&P's programs to manage various aspects of water and wildlife directly complement the mandates of other federal resource departments.	- Much liaison with OGD's, provinces/territories in studies on wildlife and impacts of pollutants on wildlife and their habitats is the responsibility of C&P.
Native Peoples	- Many native people rely on access to good quality water and healthy wildlife in order to maintain traditional life styles.	- C&P plays a strong role (should be lead) for the department in issues affecting native subsistance use of wildlife especially related to food, clothing and culture.
Canoeists, swimmers, sports fishermen, naturalists and tourism/recreation sectors which support these clients.	- Accesss to high quality water and wildlife resources enables these groups to generate both social and economic benefits through their various uses.	- C&P is responsible for coordinating studies with STATSCAN/provinces/territories to determine the importance of wildlife to Canadians.
National and regional water and wildlife conservation agencies (NGOs).	- Regional C&P water and wildlife management programs often directly support the objectives of conservation groups and vice versa.	- C&P has responsibilities under the Canada Water Act to intervene, and the ability to develop management plans for water basins of national significance. Under this authority, it is responsible for generating data and conducting research on Canada's water resources. - C&P is also accountable under numerous federal-provincial agreements (eg. South Saskatchewan River Agreement, Prairie Provinces Water Management Board) for resolving water management issues.

	OUTPUTS	ACCOUNTABILITY FACTORS
A25 AGREEMENTS ON THE MANAGEMENT OF SHARED INTER-PROVINCIAL/TERRITORIAL WATER AND WILDLIFE RESOURCES ARE IN PLACE	- Agreements with provincial/territories covering the sharing of interjurisdictional water and wildlife resources - Agreements with stakeholders on the management of all nationally significant regional water and wildlife resources. - Compliance with these agreements by all signatories.	- C&P enters into agreement and is represented on management boards to ensure accessibility of wildlife populations.
A26 WATER AND WILDLIFE MANAGEMENT PLANS FOR MAJOR DRAINAGE BASINS AND REGIONS ARE IN PLACE	- Effective implementation of management plans for all nationally significant watersheds - Implementation of regional waterfowl management plans, provincial accords, and MOUs. - New capital works to improve water supply and/or treatment in nationally significant locations.	- Various federal-provincial wildlife agreements are being negotiated by C&P for better implementation of wildlife management programs.
A27 CANADIANS RECEIVE AND UNDERSTAND INFORMATION ON THE NATURE AND EXTENT OF REGIONAL WATER AND WILDLIFE ISSUES	- A long term public awareness program on the socio-economic and environmental value of Canada's water and wildlife resources. - Periodic reports to the Canadian public on the status of key water and wildlife issues and on trends in that status.	- C&P is a leader in coordinating information with STATSCAN/provinces/territories to determine the importance of wildlife to Canadians and the subsequent economic benefits. - A public awareness program is in place to market the value of wildlife to Canadians and the need for conservation in the broadest sense.
A28 SCIENTIFIC KNOWLEDGE ON THE NATURE AND EXTENT OF REGIONAL WATER AND WILDLIFE ISSUES IS INCREASED	- Interpretive studies on the state of Canada's water and wildlife resources. - Research studies and technical reports. - Baseline data on the quality, quantity and use of Canada's water and wildlife resources.	

A29
DAMAGES RESULTING FROM NATURAL HAZARDS ARE REDUCED

CLIENTS	PROGRAM IMPACTS	ACCOUNTABILITY FACTORS
Public Treasuries at all three levels of government.	- The long term public cost of responding to flood and wildlife hazards is reduced.	- C&P is responsible for developing Crop Damage Prevention Agreements with the provinces.
Conservation Authorities and other local/municipal governments.	- Local authorities understand flooding and wildlife hazards sufficiently well that these hazards can be effectively integrated into municipal land use planning decisions.	
Landowners	- Landowners understand the nature of hazards caused by migratory birds and how to avoid these hazards.	- Crop damage prevention programs provide incentives to landowners to manipulate lands for luring waterfowl away from crops of importance to farmers.
Emergency Measures Organizations	- Emergency organizations receive technical advice to help with flood related evacuations.	
Provinces and Territories	- Compatible uses of land are encouraged, thereby minimizing the long term costs of economic investment. The crop damage reduction program exists only in Western Canada.	- C&P is responsible for 50% of the funds available for crop damage in cooperation with the provinces.
Other Federal Government departments (especially DIAND, CMHC, DPW, and development agencies).	- Federal departments know where their investments in floodplains or in wildlife hazard areas are likely to be at risk. They are also better informed as to how these hazards might be avoided.	- C&P is involved in obtaining data on damage caused by migratory birds.
Floodplain residents	- Public knows where the flood risk is, when it will occur, and how to avoid it. - New flood control structures are built to protect nationally significant floodplains.	

	OUTPUTS	ACCOUNTABILITY FACTORS
A30 **FLOOD PLAIN RESIDENTS ARE PROTECTED FROM MAJOR FLOODING EVENTS**	- Structural works to protect nationally significant floodplains. - Discouragement of new economic investment on floodplains or in areas subject to wildlife hazards.	
A31 **LAND MANAGERS IMPLEMENT LAND USE PRACTICES DESIGNED TO REDUCE DAMAGES CAUSED BY FLOODS AND MIGRATORY BIRDS**	- Technical advice on how best to avoid flooding and wildlife hazards. - Incorporation of hazard reduction strategies into land use planning at all levels of government. - Retention of high risk flood areas as natural conduits for flood waters during most storm or runoff events.	- C&P provides information on the techniques available to reduce economic losses that may be caused by migratory birds.
A32 **CANADIANS RECEIVE AND UNDERSTAND INFORMATION ON FLOOD RISK AREAS AND ON IMPENDING FLOOD EMERGENCIES**	- Flood Risk Maps - Flood forecasts - Brochures, dislays	
A33 **SCIENTIFIC KNOWLEDGE ON THE NATURE AND EXTENT OF NATURAL HAZARDS AND THEIR ECONOMIC IMPACTS IS INCREASED**	- Socio-economic studies on both the nature and the impact of flooding/wildlife hazards. - Data and technical reports on flood events. - Hydrotechnical and socio-economic studies to define the flood hazard and to recommend ways to avoid it.	- Scientific and other publications are available on the effects of migratory birds re: crop damage, bird hazards to aircrafts, etc.

B1
CONSERVATION, DEVELOPMENT AND PROTECTION EFFORTS COMBINE TO PRODUCE A HEALTHY CANADIAN ECOSYSTEM AND ECONOMY

CLIENTS	PROGRAM IMPACTS	ACCOUNTABILITY FACTORS
Provinces/Territories	- Knowledge of the State of the Environment in provinces/territories is improved. - Ecosystem research enhances the likelihood of finding plausible solutions to local environmental problems. - Better awareness of the state of the national environment and how individual actions can help improve that environment. - Improved awareness that ecology and economy can co-exist peacefully.	- C&P is accountable under a number of international conventions, agreements, etc. (e.g.) for providing Canadian leadership to the resolution of world environmental problems. Technically, the interface with international organizations is mandated through the Dept. of External Affairs. In practice, C&P usually maintains direct contact with international groups working in the environmental management field. As such, it is directly accountable for the quality of its own contribution to these international efforts.
Foreign governments and International Organizations (e.g. United Nations).	- Single point of interface with Canada on international environmental issues. - Strong Canadian support for the resolution of world environmental problems.	- C&P is loosely accountable (under the Government Organization Act, CEPA, Canada Water Act, Canada Wildlife Act, etc.) for providing national leadership on State of Environment reporting resource pricing and other environment/economy variables. In these situations, C&P helps to catalyze action by other levels of government which have jurisdictions in a particular issue. The emphasis here is on conjunctive or partnership action, particularly with the provinces and/or territories. C&P intervenes directly when matters of national significance are involved, and attempts to persuade the provinces or territories to act in a manner compatible with C&P national objectives.
Industry	- Industry is perceived more as a partner, and less as a culprit in solving environmental problems. - Chances are improved of finding environmental solutions that do not harm long-term economic opportunities.	
CCREM	- Secretariat support for CCREM committee's work. - Holistic approaches to national environmental problems improve the chances of resolving these problems.	
ENGOs (Domestic and International)	- Official support from one part of the Canadian government for some ENGO objectives. - Periodic funding of ENGO projects.	

CLIENTS	PROGRAM IMPACTS	ACCOUNTABILITY FACTORS
C&P Management	- Management information and support systems are available to enhance the delivery of C&P programs.	- C&P is wholly accountable for all internal overhead functions (e.g. administration, personnel, program/ policy development, program evaluation, etc.)

	OUTPUTS	ACCOUNTABILITY FACTORS
B2 C&P PROGRAMS ARE MANAGED EFFECTIVELY & EFFICIENTLY	- Periodic evaluations of the effectiveness and efficiency of C&P programs. - Smoothly functioning administration, management, and personnel systems/overheads.	
B3 C & P PROGRAMS AND POLICIES ARE DEVELOPED TO RESPOND TO NEW ENVIRONMENTAL ISSUES AND OPPORTUNITIES	- Credible/up-to-date national C&P programs. - Credible/up-to-date federal resource conservation and protection policies and strategies.	
B4 CANADIANS RECEIVE EARLY WARNINGS & ISSUE SENSING ON EMERGING CONSERVATION/PROTECTION ISSUES	- Watching briefs on the status of emerging environmental problems. - Periodic and regular reassessments of the changing state of the Canadian Ecosystem.	- C&P is responsible for obtaining the information, the production and the distribution of SOE reports.
B5 ENVIRONMENTAL AND RESOURCE VALUE/ PRICING CONSIDERATIONS ARE INTEGRATED INTO ECONOMIC PLANNING AND DECISION MAKING	- Appropriate resource pricing regimes, which explicitly recognize the long term value of a sustained resource base. - Advice to economic planners to encourage incorporation of environmental factors into economic decisions. - Advice to economic planners to allow them to make maximum use of C&P data/research/advice in order to develop the economy in a sustainable way.	
B6 C&P ENVIRONMENTAL SCIENCE/RESEARCH IS INTERNATIONALLY RECOGNIZED	- Credible Canadian scientific contributions to the resolution of international environmental problems. Specific vehicles for achieving that credibility include research papers, reports, and advice.	
B7 CANADIANS ARE PROVIDED INTEGRATED INFORMATION ON THE STATE OF CANADA'S ENVIRONMENT	- Periodic and regular reports describing the state of the Canadian environment as an entity, or portions of that environment.	
B8 INTEGRATED SCIENTIFIC KNOWLEDGE ON THE POLLUTION, USE, VALUE AND STATUS OF THE CANADIAN ECOSYSTEM IS INCREASED	- Reports/studies/advice illustrating the key pollution/conservation vectors which exist in the Canadian ecosystem as a whole.	

C1
ADVERSE ENVIRONMENTAL IMPACTS OF NEW INITIATIVES ARE REDUCED

CLIENTS	PROGRAM IMPACTS	ACCOUNTABILITY FACTORS
Other Federal Departments (especially those involved in resource exploitation, e.g. EMR).	- Advice on ways to minimize the environmental impacts of new projects. - If adopted, this advice can help to reduce the eventual cost of these new projects.	
FEARO	- Assistance with implementing the federal EAR process.	- C&P is accountable for providing leadership in ensuring DOE compliance with EARP; for the assessment of its own initiatives; and for providing an advisory service to OGDs.
Provinces and Territories	- Advice and support for provincial and territorial Environment Assessment processes.	
Industry	- Environmentally sound projects pay off in the long run. (Pollution control is good economics).	
ENGOS (Native Groups, etc.)	- Direct support for the objectives of NGOs.	

	OUTPUTS	ACCOUNTABILITY FACTORS
C2 PROPONENTS INCORPORATE C & P ADVICE INTO DEVELOPMENT INITIATIVES	- Incorporation of C&P advice into proponent planning and decision-making.	- C&P provides advice on its own and on referred projects; proponents determine the applicability of this advice.
C3 CANADIANS RECEIVE AND UNDERSTAND C & P ADVICE ON ENVIRONMENTAL ASSESSMENT	- Recommendations/advice on assessment procedures, environmental standards, potential impacts and suggested control measures.	- C&P provides the advice; proponents factor the advice into their decisions.
C4 GUIDELINES FOR ENVIRONMENTAL ASSESSMENT ARE DEVELOPED	- Environmental standards, guidelines, codes of good practice.	- C&P identifies the need for, and develops the standards, guidelines and codes; proponents actually use these tools.
C5 BASELINE KNOWLEDGE TO FACILITATE IMPACT ASSESSMENT IS INCREASED	- Baseline data for assessing the potential impact of new developments. - Post project evaluations.	- C&P is a contributor to the development of baseline data and to post-project evaluations.

C6
IMPACTS OF HARMFUL AIR & WATER EMISSIONS/EFFLUENTS ARE REDUCED

CLIENTS	PROGRAM IMPACTS	ACCOUNTABILITY FACTORS
Provinces and Territories	- Fewer effluents and emissions reach the environment.	- C&P is responsible for administering legislation (e.g. CEPA) designed to minimize releases to the environment.
Municipalities	- C&P effluent/emission control programs provide technical support for improved municipal responses to effluent/emission pollution. On occasion, C&P also acts as an administrative conduit for infra-structure improvement funds emanating from other federal government programs.	
Industry	- Opportunities to exploit/export Canadian pollution control technology are increased. - Industries which responsibly control their effluents/emissions are perceived more favourably by the Canadian public.	
Other federal government departments (especially those with a resource management focus, such as DFO).	- C&P effluent/emission control programs provide a healthier resource base for these departments to manage.	
National and state governments of other countries.	- Canadian efforts to control emissions and effluents ultimately support the pollution control objectives of other nations.	
Non-governmental pollution control organizations.	- C&P efforts to control emissions/effluents directly support the objectives of these groups, and vice versa.	

	OUTPUTS	ACCOUNTABILITY FACTORS
C7 POLLUTERS COMPLY WITH LEGISLATION RELATED TO EMISSIONS AND EFFLUENTS	- Effective effluents/emissions regulatory regime. - Enforcement and compliance with this regime including inspection, sampling, analysis, auditing, implementation).	- C&P administers legislation, sets regulations, and enforces both in co-operation with Provinces.
	- Action plans and federal/provincial agreements to control major emissions and effluents.	C&P negotiates Action Plans and and Agreements and implements its specific responsibilities, but polluters are responsible for the actual cleanup and/or retardation of pollution.
C8 ENVIRONMENTAL QUALITY OBJECTIVES OR GUIDELINES ARE DEVELOPED AND IMPLEMENTED	- Air, Water and Soil Quality Objectives Codes and Guidelines using best practical technology.	- C&P develops Objectives, Codes, and Guidelines in co-operation with Industry and Provinces. - Use of these codes by provinces and industry is monitored and the environmental effect is determined.
C9 CANADIANS RECEIVE/ UNDERSTAND INFORMATION ON IDENTIFIED POLLUTANT LEVELS, TRENDS, PATHWAYS TECHNOLOGIES, AND IMPACTS ON AIR, WATER, WILDLIFE AND LAND	- Public Reports, publications - Technology, demonstration projects - Public consultation processes, (e.g. regulatory Agenda) - Interpretive reports assessing the impact of effluents/emissions on water and wildlife.	- C&P sometimes informs the public directly, and sometimes co-operates with others on the development and dissemination of information.
C10 SCIENTIFIC KNOWLEDGE ON IMPACTS OF EMISSIONS/EFFLUENTS ON AIR, WATER, WILDLIFE AND LAND IS INCREASED	- Interpretive studies on the state of air/water effluents/emissions in Canada, including assessments of the effectiveness of control programs. - Research studies and reports. - Impact assessments of pollutants. - Technology demonstration projects - Baseline Data - Interpretive studies evaluating the impact of effluents/emissions on water/wildlife/land.	- C&P identifies knowledge deficiencies and tries to fill gaps (by itself) or in co-operation with others). - C&P also conducts research on the impacts of air/water effluents/emissions on wildlife and uses wildlife as an indicator on the health of the environment.
C11 NEW POLLUTION CONTROL TECHNOLOGY AND EXPERTISE IS DEVELOPED	- New Pollution Control Technology	- C&P identifies technology deficiencies and promotes the development of Pollution Control Technology (in co-operation with others).

C12
HARMFUL IMPACTS OF TOXICS AND OTHER PRODUCTS ARE CONTROLLED!

CLIENTS	PROGRAM IMPACTS	ACCOUNTABILITY FACTORS
Provinces and Territories	- The introduction, use, transportation and disposal of toxics and other harmful products is kept within environmentally acceptable boundaries.	- C&P administers the Envt. Cont. Act. and its regulations. - C&P co-operates with others for the fulfillment of their regulatory mandate (e.g. AgCan, PcpA; DOT-TDGA; CCA-Hazardous Products Act, etc.)
National and state governments of other countries.	- Toxic management is a major priority of all governments. C&P provides direct support, and often significant leadership, to global efforts to control harmful products in the environment.	
Other federal governmen departments, especially those with a direct interest in the toxic chemical management cycles, such as MOT, AgCan, DFO and NH&W.	C&P provides technical expertise, co-ordination, leadership, and often direct support for the programs of these departments.	
Industry	- Technology for Toxics management improves, thereby increasing Canada's technological and potential export bases.	
Environmental non-government organizations	- C&P programs to improve toxics/hazardous products management directly support the objectives of these groups, and vice versa.	

OUTPUTS

C13
USERS COMPLY WITH LEGISLATION ON THE INTRODUCTION, USE, TRANSPORTATION AND DISPOSAL OF TOXICS AND OTHER PRODUCTS

- Effective regulatory regime for chemicals in commerce.
- Enforcement and compliance with this regulatory regime (including inspections, analysis, etc.).

- C&P administers and enforces legislation , and determines priorities for analysis, sets and enforces regulations.
- It also provides scientific advice to other agencies to fulfil their regulatory requirements (e.g. PCPA, TDGA) and negotiates and implements its share of international agreements

C14
CODES/GUIDELINES FOR LIFECYCLE MANAGEMENT OF CHEMICALS ARE DEVELOPED AND IMPLEMENTED

- Guidelines/Codes for specific toxic/ chemicals.
- Generic Guidelines for different parts of the management cycle.
- Periodic audits of implementation of codes guidelines.
- Environmentally-Friendly Product Guides.

- C&P develops guidelines/codes for use by others.
- C&P monitors the use of the guidelines, codes by others.

C15
CANADIANS RECEIVE/ UNDERSTAND INFORMATION ON THE LIFECYCLE OF CHEMICALS IN COMMERCE AND THEIR IMPACTS ON AIR, WATER, WILDLIFE AND LAND

- Hazard/Risk Assessment Reports
- Public Information Documents
- Early Warning of Chemical Threats
- Interpretive Reports assessing the presence of toxics/hazardous products in wildlife and water.

- C&P informs the public directly.
- C&P co-operates with OGDs (e.g. Health and Welfare and others in the development and dissemination of information.

C16
SCIENTIFIC KNOWLEDGE RELATED TO LIFE CYCLE MANAGEMENT OF TOXICS AND THEIR IMPACTS IS INCREASED

- Good Laboratory Practices, (QA/QC)
- Fate and Effect Studies
- Environmental trend analysis
- Use pattern analysis
- Post-registration field evaluations
- Research studies defining the impact of toxics/hazardous products on wildlife and water.
- Baseline data.

- C&P provides basic data on the production, use, transportation and disposal of toxic chemicals.

C17
ENVIRONMENTAL QUALITY AT SPILL AND WASTE SITES IS RESTORED TO ACCEPTABLE LEVELS

CLIENTS	PROGRAM IMPACTS	ACCOUNTABILITY FACTORS
Provinces and Territories	- Containment of the impact of hazardous/ toxic products within environmentally acceptable boundaries.	
Industry	- C&P emergency response programs provide environmentally dangerous industries with additional margins of safety.	
Other federal government departments, especially those involved with public emergencies, such as MOT (Coast Guard), DND, DFO, etc.	- C&P provides co-ordination, technical support, and leadership to these agencies.	
National and state governments of other nations.	- C&P emergency response programs help to preserve international environmental security among nations. C&P programs provide a credible Canadian contribution on the world stage.	
Environmental non-government organizations.	- C&P programs to contain or clean up enviromental emergencies/spills are a very tangible contribution to the objectives of many of these organizations.	

OUTPUTS

C18 POLLUTERS COMPLY WITH LEGISLATION ON THE CLEAN-UP OF SPILL/WASTE SITES	- Effective regulatory regime for responding to spills and clean up of problem disposal sites of federal concern.	- C&P administers legislation designed to protect specific resources and environmental quality (e.g. FA; ODCA, and CEPA in the future)
C19 CONTINGENCY PLANS AND OTHER MECHANISMS EXIST FOR DEALING WITH ENVIRONMENTAL POLLUTION EMERGENCIES	- Implementation of contingency plan for responding to environmental emergencies/ spills.	- C&P also co-operates with those who have regulatory responsibility (i.e. Canada Shipping Act - DOT and Emergency Planning Canada).
	- Plans for DOE participation in response to significant environmental emergencies.	- C&P co-operates with other agencies in developing and exercising contingency plans.
	- Guidelines (e.g. spill threatening agents; Basis of chemical spill cleanings, etc.)	
C20 CANADIANS RECEIVE AND UNDERSTAND INFORMATION AND ADVICE ON HAZARDOUS WASTE AND SPILL SITE CLEANUP	- Publication of contingency plans	- C&P develops and disseminates information, sometimes in co-operation with others.
	- Technology transfer proposals	
	- Fate and Effect analysis	
	- Audio-visual aids (e.g. video on De-oiling of Waterfowl)	
C21 CONTROL TECHNOLOGIES FOR CLEAN-UP ARE DEVELOPED	- clean up technologies developed, evaluated, or demonstrated	-C&P evaluates, develops and demonstrates technologies in coperation with other governments and industry.

ANNEX B

PRESENT C&P PROGRAM ACTIVITY STRUCTURE

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Sub-Activity	Code	Sub-Sub-Activity (National Programs/Needs)
Inland Waters/Lands	1.1	Canada-U.S. and Interjurisdictional Water Management
	1.2	Flood Damage Reduction
	1.3	Water Quality Management Data
	1.4	Water Quantity Management Data
	1.5	Water Management Research
	2.1	Land Use Policy and Research
	2.2	Land Monitoring, Evaluation and Data Systems
	4.1	Toxic Chemicals
	4.2	Long Range Transport of Airborne Pollutants
	4.3	Environmental Assessment and Baseline Studies
	1.6 (2.3)	Management and Administration
Wildlife	3.1	Migratory Birds Conservation
	3.2	Wildlife Research and Conservation
	4.1	Toxic Chemicals
	4.2	Long Range Transport of Airborne Pollutants
	3.4	Management and Administration
Environmental Protection	1000	NEED A - Impacts of New Developments
	2000	NEED B - Industrial Emissions/Discharges
	3000	NEED C - Hazardous Substances
	4000	NEED D - Cleanup
	5000	NEED E - Public/Environmental Information
	6000	NEED G - Management & Administration
Management & Common Support Services	5.1	Management
	5.2	Common Support Services

ANNEX C

STEERING COMMITTEE AND WORKING GROUP MEMBERSHIP

ANNEX C STEERING COMMITTEE AND WORKING GROUP MEMBERSHIP

Steering Committee	Working Group
D.A. Davis (IW, Headquarters)	D. Bjonback (IW, Western & Northern)
D.K. Dawson (RDG/Pacific & Yukon)	B. Boulden (EP Headquarters)
J.-C. Dumesnil (MIAB Headquarters)	R. Daley (IW, National Water Research Institute)
G. Coates (F/A, Headquarters)	H. Foerstel (IW, Headquarters)
J. Maxwell (Policy/Planning, Headquarters)	M. Goffin (RDGO, Ontario)
	T. Jones (Chairman) (IW, Atlantic)
	L. Maltby (CWS, Headquarters)
	R. Matteau (F/A, Headquarters)
	S. McCauley (MIAB, Headquarters)
	W. McCauley (EP, Headquarters)
	J. Vincent (CWS, Québec)
	C. Wykes (EP, Pacific/Yukon)